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Volume 2

Part II NASA CR-

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AS-BUILT DOCUMENT FOR THE
CAMS IMAGE-100 HYBRID SYSTEM

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FOR THE CAMS IMAGE-100 HYBRID SYSTEM.
VOLUME 2: DETAILED FLOW CHARTS AND PROGRAM
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VOLUME 2

DETAILED FLOW CHARTS AND PROGRAM LISTINGS

Prepared By
Lockheed Electronics Company, Inc.
Systems and Services Division
Houston, Texas

Contract NAS 9-15200

For

EARTH OBSERVATIONS DIVISION
SCIENCE AND APPLICATIONS DIRECTORATE



National Aeronautics and Space Administration
LYNDON B. JOHNSON SPACE CENTER
Houston, Texas

August 1977



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Volume 2

Part II

"AS-BUILT" DESIGN SPECIFICATION
FOR THE
CAMS IMAGE-100 HYBRID SYSTEM

Job Order 71-195

Volume 2
DETAILED FLOW CHARTS AND PROGRAM LISTINGS

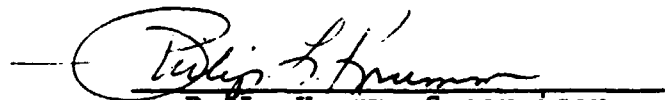
Assembled By

L. E. Giddings

from contributions of the following persons:

R. T. Minter	L. F. Robinson
K. L. Pattison	R. M. Rodriguez
P. S. Lin	J. K. Rowland
G. J. Champagne	C. D. Shih
E. J. Hightower	H. G. Thadani
W. A. Holley	S. G. Thadani
J. S. Huang	B. R. Thompson
T. R. Kell	E. L. Wilson
D. L. Loe	

APPROVED BY


P. L. Krumm, Supervisor
Applications Software Section

Prepared By

Lockheed Electronics Company, Inc.

For

Earth Observations Division
Science and Applications Directorate
NATIONAL AERONAUTICS AND SPACE ADMINISTRATION
LYNDON B. JOHNSON SPACE CENTER
HOUSTON, TEXAS

August 1977

SPECIAL NOTE

The information in all three volumes of this document has been carefully checked. It is current at the time of publication, the end of August, 1977. This document will not be revised to show corrections and further changes. Rather, a new document will be issued toward the end of 1977 incorporating all changes, and making necessary corrections. The new volumes will be issued under the title: "As-Built Design Specifications for the CAMS Image-100 Hybrid System, as modified. The new document will be issued as LEC-11216 and JSC-13118.

Please bring errors and corrections to the attention of L. Giddings, 333-6311, mail code C42.

ABSTRACT

This document shows the CAMS Image-100 Hybrid System as it was actually built. Volume 1 lists the computer programs for each portion of the system, together with functional flow charts. Subroutines and function for each program are described in the summary. Volume 2 presents detailed flow charts and listings of all items listed in the first volume. The third volume presents brief descriptions and listings of subroutines shared by several programs. All three volumes close with an index of computer elements of the entire document.

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DOTPRG,FTN

/TRIBLOCK/WR

```

0023 • 2D0TARY(ND0TS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)
      • COMMON/COM5/DISKID,RAND0M(ND0TS),GRID(ND0TS),DLABEL(ND0TS),
      • ITYPE(ND0TS),RECL0C

```

C
C
C
C

```

0024 DIMENSION DALARM(13),GRNSS(6),SEGNN(6),GRN0B(6)
0025 DIMENSION CH1(6),CH2(6),CH3(6),CH4(6)
0026 DIMENSION CH1234(6),XYCORD(418)

```

C
C

```

0027 EQUIVALENCE (IRUF(9),GB1),(IRUF(17),GB2)
0028 EQUIVALENCE (IRUF(25),GB3),(IRUF(33),GB4)
0029 EQUIVALENCE (IRUF(41),GB5),(IRUF(49),GB6)
0030 EQUIVALENCE (DLAB(1),DLAB8)

```

C
C

```

0031 DATA DLAB/' ',' ',' ',' ',' ',' ',' ',' ',' ',' ',' '

```

C
C

```

0032 CALL ATTACH
0033 PTYPE = 1
0034 FR1 = 1
0035 FR2 = 3

```

C
C
C
C
C

```

0036 OPEN (UNIT=7,NAME='[300,1]00TS,TMP',TYPE='OLD',
      • ACCESS='DIRECT')

```

C
C
C

```

0037 ELAP = 1
0038 CALL ELAPSE (ELAP)

```

C
C
C

```

0039 10 CALL OUTPUT (27,12)

```

C

```

0040 CALL IDATE (M0,DAY,YR)
0041 CALL TIME (TIM)

```

C

```

0042 CALL HSEKPG (=1)
0043 CALL HSEKPG (5)

```

C

```

0044 WRITE (6,100) M0,DAY,YR,TIM
0045 100 FORMAT (1H0,50X,'DATE: ',12,2(1/,12),
      • 1 /56X,12(1=''),/,51X,'TIME: ',8A1,/,12(1=''))

```

C

```

0046 CALL HSEKPG (2)
0047 WRITE (6,120)
0048 120 FORMAT (1H0,22X,' SINGLE DAT PROCESSING-MAY 1977')

```

C

DOTPRG.FTN

/TRIRLOCKS/WR

0049 CALL FINDOT (N,EXFL)
 0050 IF (EXFL,NE,0) GO TO 9090

0051 READ (7,N) IRUF

0052 CALL HSEKPG (1)
 0053 CALL HSEKPG (15)

0054 WRITE (6,130) GRID(N)
 0055 130 FORMAT(140,10X,' DOT DATA REPORT:',
 1 /,11X,' RANDOM INDEX = ',13)

0056 WRITE (6,140) N
 0057 140 FORMAT(11X,' GRID INDEX = ',13)

0058 IF (DLABEL(N).EQ.0) GO TO 141
 0059 IF (DLABEL(N).EQ.-1) GO TO 143
 0060 IF (DLABEL(N).EQ.-2) GO TO 145
 0061 DLABR = CATNAM(DLABEL(N))
 0062 GO TO 148

0063 141 DLAB(1) = 'D'
 0064 DLAB(2) = 'N'
 0065 DLAB(3) = 'L'
 0066 DLAB(4) = 'A'
 0067 DLAB(5) = 'B'
 0068 DLAB(6) = 'E'
 0069 DLAB(7) = 'L'
 0070 DLAB(8) = 'E'
 0071 DLAB(9) = 'D'
 0072 GO TO 149

0073 143 DLAB(2) = 'D'
 0074 GO TO 146

0075 145 DLAB(2) = 'D'
 0076 146 DLAB(1) = 'D'
 0077 148 DZ 147 I=3,9
 0078 147 DLAB(1) = 'D'

0079 149 WRITE (6,150) DLAB
 0080 150 FORMAT(11X,' ANALYST LABEL = ',13)

0081 WRITE (6,160) TYPE(N)
 0082 160 FORMAT(11X,' TYPE = ',13)

0083 PIX = IBYTE(0,IRUF)
 0084 LIN = IBYTE(1,IRUF)
 0085 WRITE (6,170) PIX,LIN
 0086 170 FORMAT(11X,' SPATIAL COORDINATES
 1 /,11X,' (PIXEL) = ',13,
 2 /,11X,' (LINE) = ',13)

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```

0087      GRSS(1) = GH1
0088      GRSS(2) = GR2
0089      GRSS(3) = GR3
0090      GRSS(4) = GR4
0091      GRSS(5) = GR5
0092      GRSS(6) = GR6
0093      DO 230 I=1,NMACQ
0094      RIF = I - 1
0095      SPGRN(I) = IRYTE(6IE,SOILGR)
0096      GRNR(I) = GRSS(I) - SPGRN(I)
0097      WRITE (6,180) (GRNR(I),I=1,NMACQ)
0098      180  FORMAT(11X,' GREEN NUMBER      =',(6(13,2X)))
      C
0099      J = 4
0100      DO 240 I=1,NMACQ
0101      CH1(I) = IRYTE(J,IRUF)
0102      240  J = J + 8
      C
0103      J = 5
0104      DO 241 I=1,NMACQ
0105      CH2(I) = IRYTE(J,IRUF)
0106      241  J = J + 8
      C
0107      J = 6
0108      DO 242 I=1,NMACQ
0109      CH3(I) = IRYTE(J,IRUF)
0110      242  J = J + 8
      C
0111      J = 7
0112      DO 243 I=1,NMACQ
0113      CH4(I) = IRYTE(J,IRUF)
0114      243  J = J + 8
      C
0115      WRITE (6,185)
0116      185  FORMAT(11X,' ACQUISITION DATA      ')
      C
0117      WRITE (6,186) (CH1(I),I=1,NMACQ)
0118      186  FORMAT (25X,' CH1      =',(6(13,2X)))
      C
0119      WRITE (6,187) (CH2(I),I=1,NMACQ)
0120      187  FORMAT (25X,' CH2      =',(6(13,2X)))
      C
0121      WRITE (6,188) (CH3(I),I=1,NMACQ)
0122      188  FORMAT (25X,' CH3      =',(6(13,2X)))
      C
0123      WRITE (6,189) (CH4(I),I=1,NMACQ)
0124      189  FORMAT (25X,' CH4      =',(6(13,2X)),/)
      C
0125      DO 400 I=1,NMACQ
0126      400  IF (ACDISP(1).EQ. ADATER(1,I)) GO TO 420
      C
0127      405  WRITE (6,410)

```


DETPRO.FIN /TR:BLCKS/NR

0128 410 FORMAT (1H0, ' WARNING! NO ACQUISITION ON DISPLAY!!!'
 0129 GO TO 435

C
 0130 420 DO 430 I=1,NPACQ
 0131 430 IF (ACDISP(2).EQ. ADATES(2,1)) GO TO 440
 0132 GO TO 405

C
 C
 0133 435 J = ((NPACQ*5) + ((NPACQ-1)*3) - 1)
 0134 DO 437 I=1,4
 0135 CHDTA = I*BYTE (J,IPUF)
 0136 CH1234(I) = FL2AT(G(I))*(CHDTA*FL2AT(B(I))/100.)/100.
 0137 437 J = J + 1
 0138 GO TO 452

C
 C
 0139 440 OPEN (UNIT=FR1,TYPE='UNKNOWN',NAME='(300,1)SDTGY.TMP',
 1 RECFM=NSDTS,MAXREC=1,ACCESS='SEQUENTIAL',
 2 FORM='UNFORMATTED')

C
 0140 READ (FR1) XYCORD

C
 0141 CLOSE (UNIT=FR1,DISPOSE='SAVE')

C
 0142 DO 450 IC=1,4
 0143 CALL IRV (IC,XYCORD(N*2),BUFFER)
 0144 CALL WAIT
 0145 CH1234(IC) = BUFFER(XYCORD(N*2-1))
 0146 450 CONTINUE

C
 C
 C
 C
 0147 452 N1 = (N-1)*2+1
 0148 OPEN (UNIT=FR2,TYPE='UNKNOWN',NAME='(300,1)SCATXY.TMP',
 1 RECFM=NSDTS,MAXREC=NSD,ACCESS='DIRECT')

C
 0149 DO 455 NCH=1,NOSCHD
 0150 IF (SPIND(1,NCH).NE. 1) GO TO 455
 0151 READ (FR2) XYCORD
 0152 IF (XYCORD(N1).EQ. 0) GO TO 455
 0153 X1 = XYCORD(N1)
 0154 X2 = X1 + 1
 0155 Y1 = XYCORD(N1+1)
 0156 Y2 = Y1 + 1

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C
 0157 DO 454 CHN=1,4
 0158 ARF = CH1234(CHN)
 0159 IND = 1
 0160 CALL VDALT (X1,Y1,X2,Y2,CHN,ARF,IND,FLG)
 0161 454 CONTINUE

C
 0162 455 CONTINUE

C
 0163 CLOSE (UNIT=FR2,DISPOSE='SAVE')


```

0164      J = 1
0165      D3 450 I=1.4
0166      DALARM(J) = CH1234(I)
0167      DALARM(J+1) = CH1234(I)
0168      DALARM(J+2) = 0
0169      450 J = J + 3
0170      DALARM(13) = -1

      C
      C
0171      CALL INL (DALARM)

      C
      C
      C
      C
0172      190 CALL USEKPS (9)
0173      WRITE (6,200)
0174      200 FORMAT(1H0,' SELECTION NOT(2) FROM THE FOLLOWING: ',
1 /,' (1) WINDUP CRASH',
2 /,' (2) DOT BLURP',
3 /,' (3) TRAJECTRY PLT',
4 /,' (4) GROUP TYPING FOR CURRENT DOT SELECTION',
5 /,' (5) SINGLE DOT LABELING',
6 /,' (6) SINGLE DOT TYPING >')

      C
      C
      C
0175      CALL OUTPUT (7)
0176      READ (6,300) INPUT
0177      300 FORMAT (7A41)

      C
0178      CALL PR2LT (INPUT,74)
0179      IF (INPUT(1) .EQ. 'X') GO TO 9090
0180      IF (INPUT(1) .EQ. 'B') GO TO 10
0181      IF (INPUT(1) .EQ. '1') GO TO 1001
0182      IF (INPUT(1) .EQ. '2') GO TO 1002
0183      IF (INPUT(1) .EQ. '3') GO TO 1003
0184      IF (INPUT(1) .EQ. '4') GO TO 1004
0185      IF (INPUT(1) .EQ. '5') GO TO 1005
0186      IF (INPUT(1) .EQ. '6') GO TO 1006
0187      GO TO 190

      C
      C
      C
0188      1001 CALL WINDER (EXFL)
0189      GO TO 2000

      C
0190      1002 CALL WLBKUP (EXFL)
0191      GO TO 2000

      C
0192      1003 CALL TRAJPL (EXFL,N,CH1234)
0193      GO TO 2000

      C
0194      1004 CALL GTYPE (EXFL)
0195      GO TO 2000

      C

```


DDTPRO.FIN /TR1BLCKS/NR

0196 1005 CALL DDTLAB (EXFL,N)

0197 GO TO 2000

C

0198 1006 CALL STYPE (EXFL,N,PTYPE)

C

C

0199 2000 IF (EXFL.NE.1) GO TO 190

C

C

C

C

0200 9090 CALL HSEKPG (2)

0201 ELAP = 2

0202 CALL ELAPSE (ELAP)

0203 9995 CALL HSEKPG (3)

0204 WRITE (6,500)

0205 500 FORMAT (//,'3 (P)ESTART 00 E(X)IT >')

C

0206 CALL OUTPUT (7)

C

0207 READ (6,300) INPUT

C

0208 CALL FRNT (INPUT,74)

0209 IF (INPUT(1).EQ.'R') GO TO 10

0210 IF (INPUT(1).EQ.'X') GO TO 9000

0211 GO TO 9998

C

C

C

0212 9001 CLOSE (UNIT=7,DISPOSE='SAVE')

0213 CALL DETACH

0214 INCLUDE '[300,3]CAHSAVE.INC'

0215 * OPEN(UNIT=1,NAME='[300,1]GLOBAL.TMP1',FORM='UNFORMATTED',

* 1 TYPE='UNKNOWN',ERR=9999)

0216 * WRITE(1)C1

0217 * WRITE(1)C2

0218 * WRITE(1)C3

0219 * WRITE(1)C4

0220 * WRITE(1)C5

0221 * CLOSE(UNIT=1)

0222 * GO TO 9991

0223 * 9999 TYPE 9990

0224 * 9990 FORMAT(1X,'OPEN FAILURE 24 [300,1]GLOBAL.TMP--NO RESTART')

0225 * 9991 CONTINUE

0226 CALL SETEF (50)

0227 CALL EXIT

C

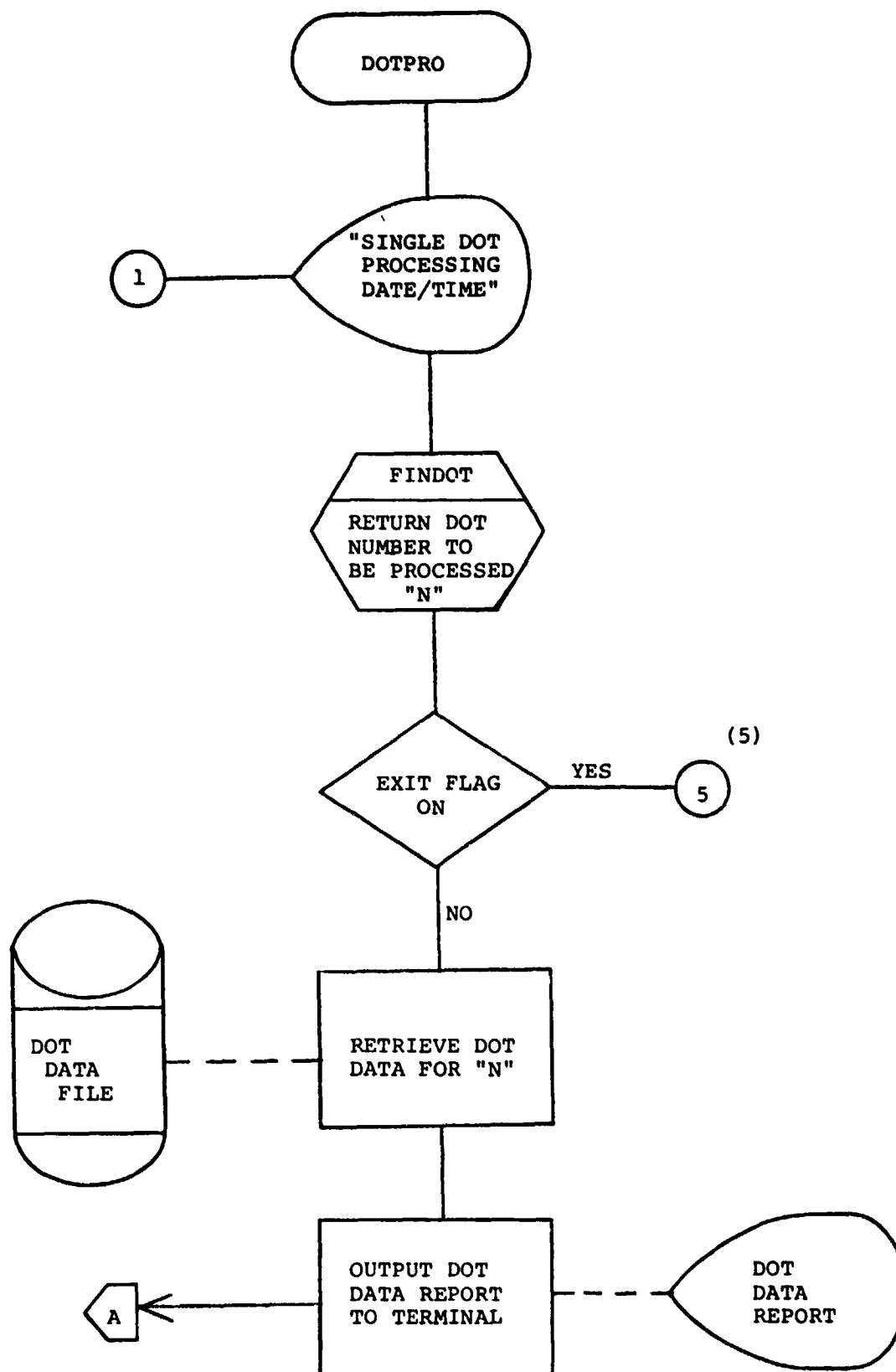
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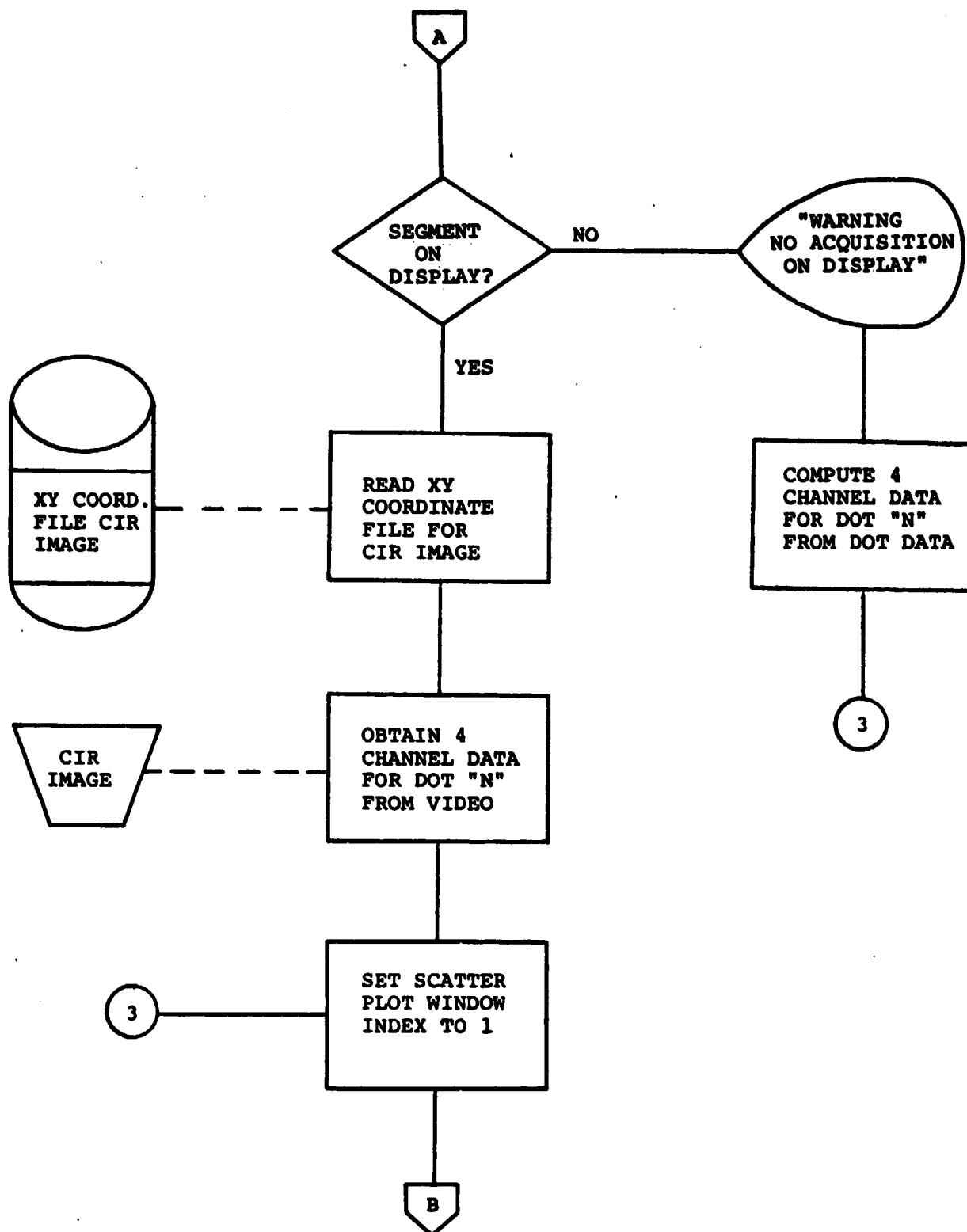
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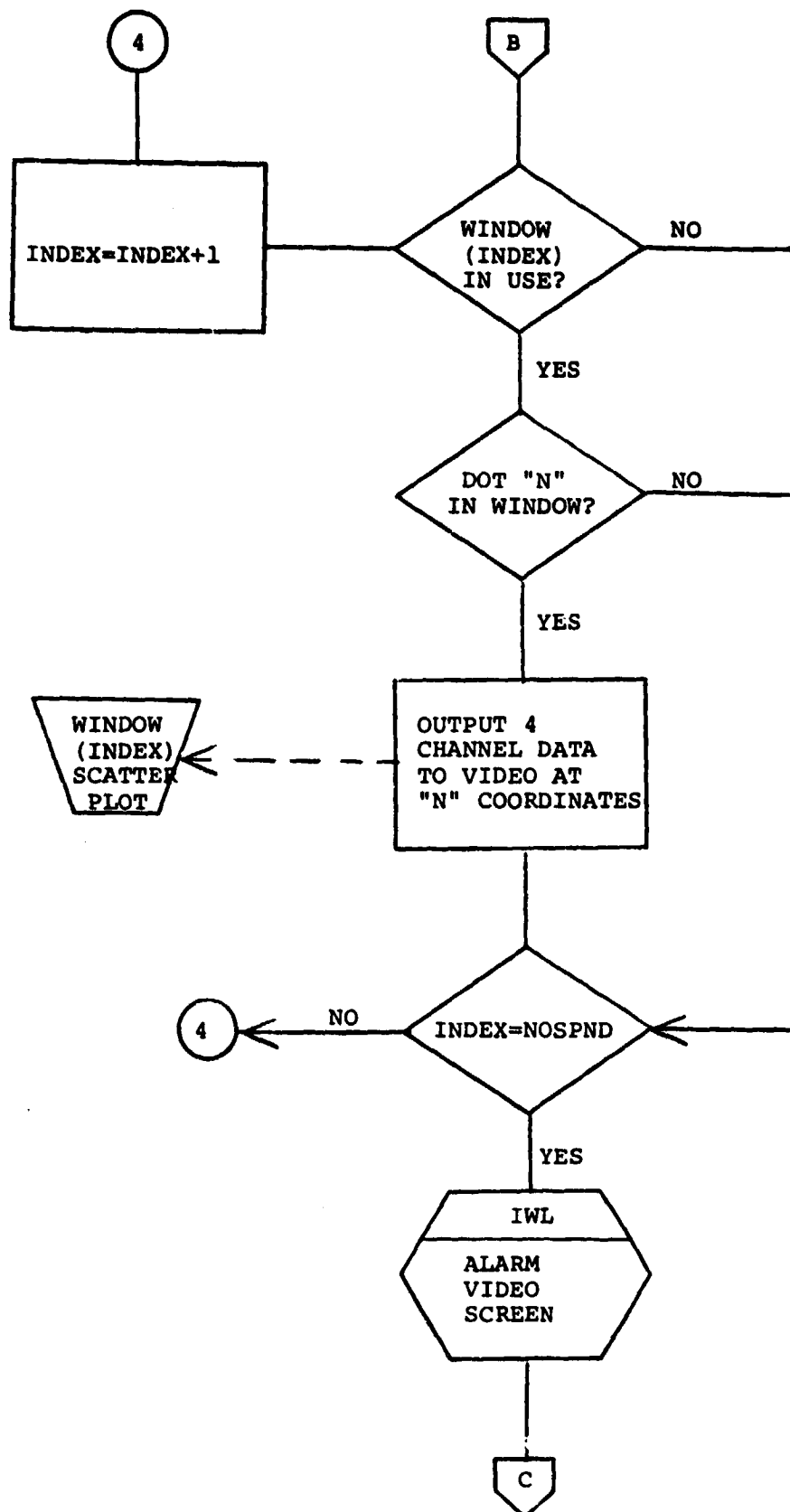
0228 END

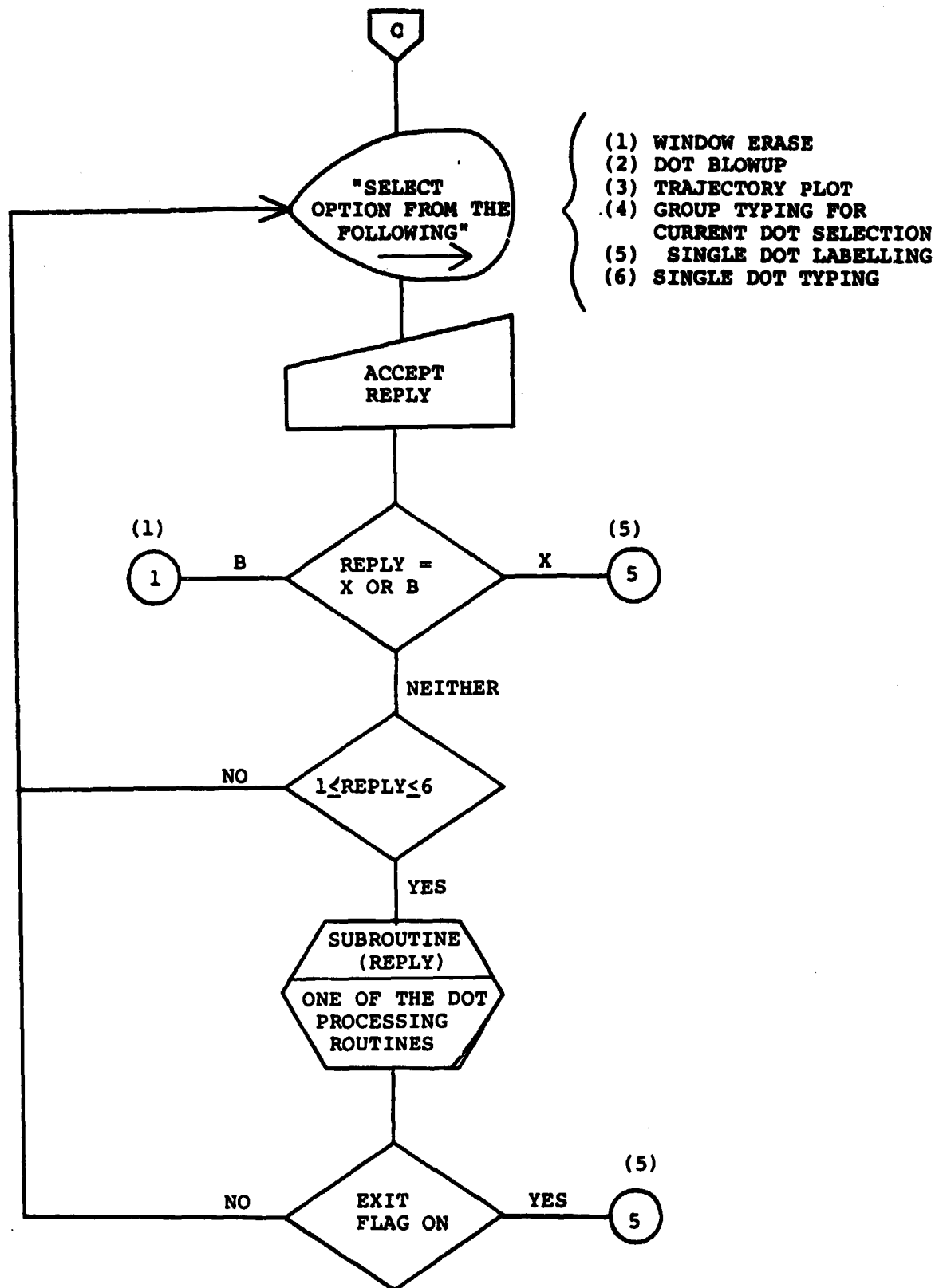
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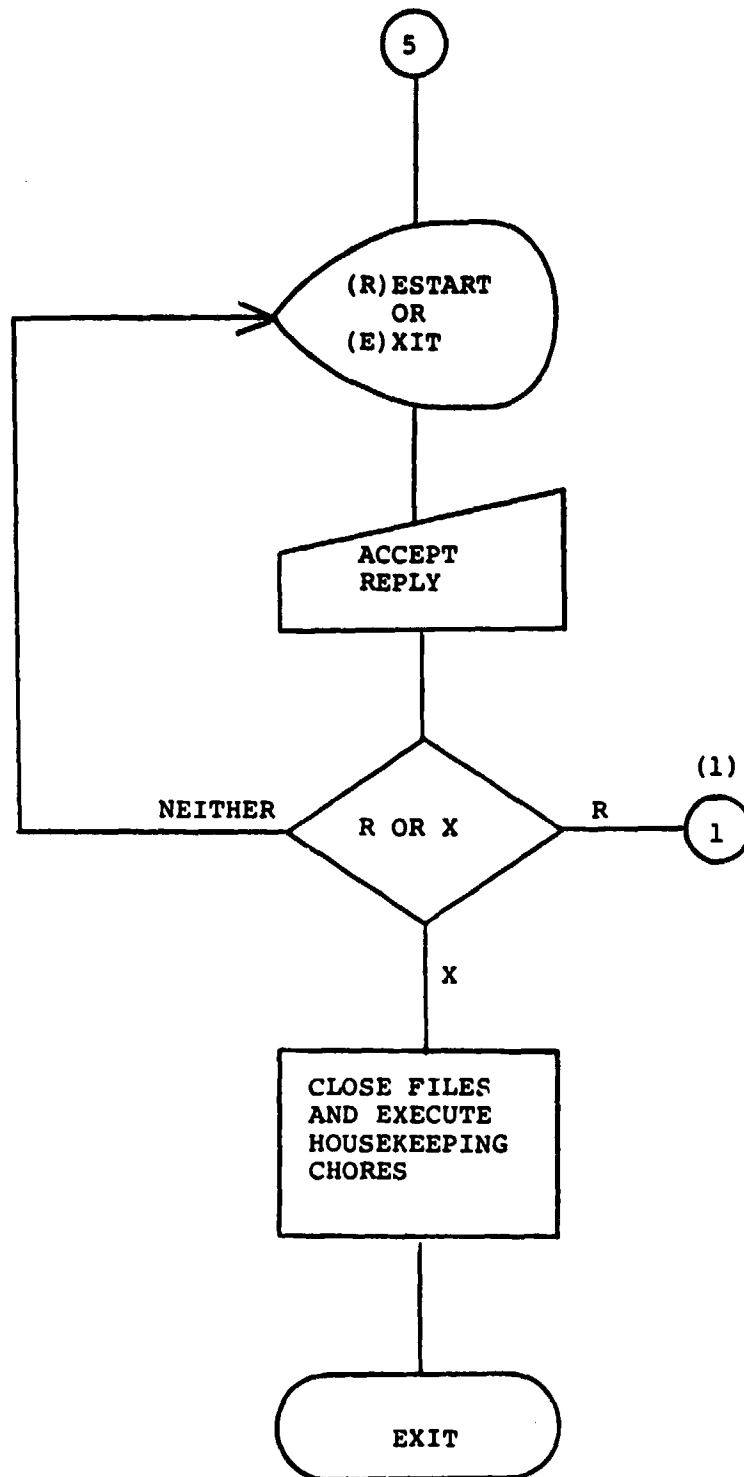
13. SINGLE DOT PROCESSING DOTPRO











13.1 SUBROUTINE STYPE

HFORTRAN IV-PLUS V02-04

12146104

22-AUG-77

PAGE 1

STYPE,FTN

/TRIRLOCKS/WR

0001

SUBROUTINE STYPE (EXFL,N,PTYPE)

C

C

C

CC

C

C

C

SINGLE DIT TYPING ROUTINE

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C

C

CC

C

C

C

0002

IMPLICIT INTEGER (A-Z)

C

C

0003

BYTE INPUT(7),PTYPE

C

C

0004

INCLUDE 'SYI(300,3)CAMSCOMP.N,INC'

0005

INCLUDE 'SYI(300,3)CANSPARAM,INC'

0006

PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=50,
1,MAXM=11,NBPTS=209,ILSKIP=10,DSKIP=10,MAXACD=6,MAXACC=4,
2,NBSP=6,NBDB=10

0007

EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,TX1),(C5,DISKID)

0008

INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)

C

0009

INTEGER ACDATE,SUBCAT,SUBP,P,CATKAT,CATTH

0010

BYTE CH,VEC,NCHAN,NBSUB,UTICAT,DPTCLU

0011

COMMON/COMMON1/ACDATE(2),MAXACC),CH,VEC(MAXCHN,MAXACC),NCHAN,NBSUB,
1,SUBCAT(MAXSUB),SUBP(MAXSUB),CATKAT(MAXCAT),CATTH(MAXCAT),NBDB,
2,NBDB,CATTH,DPTCAT(NBPTS),DPTCLU(NBPTS)

C

0012

INTEGER ADATES,SUBCAT,ANALST,FLDDAY,DPTDAY,PDATE1,TDATE1

0013

INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDMM,GRID

0014

BYTE DEFLEG,NEACO,SILGR,SINEL,NSTART,NTYPE1,ALP,ALP0

0015

BYTE PCTOT,PCTGT,VAR,VAR0,CLABEL,TYPE

0016

COMMON/COMMON2/ISEG,DEFLEG,NBACO,ADATES(2,MAXACD),SILGR(MAXACD),
1,SINEL(MAXACD),SUMAT(MAXACD),INDATE(2),ANALST(5),FLDDAY(2),
2,DPTDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
3,PDATE3(2),TDATE3(2),SUBCAT,CATNAM(MAXCAT),ALP(MAXCAT),ALP0,
4 PCTOT(MAXCAT),PCTGT,VAR(MAXCAT),VAR0

C

0017

INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,

1,UFLAG4

0018

INTEGER PFLAG,DSKMAT

0019

COMMON/COMMON3/PFLAG,DSKMAT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,
1,UFLAG2,UFLAG3,UFLAG4,EFLAG(MAXSUB)

C

0020

INTEGER TX1,TY1,TX2,TY2,AC[SP,G,B,D]WIND,DOTARY,GMIN,GMAX,FUL

0021

INTEGER SP,IND,CLAND,CLAND0

0022

COMMON/COMMON4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,AC[SP(2),I1(4),G(4),
1,R(4),DPTINT(5,NBPTS),SP[IND(5,NBSPND),IMWIND(4),NUMDOT,
2,DOTARY(NBPTS),GMIN,GMAX,FUL(2,7),CLAND(8),CLUWIND(8)
COMMON/COMMON5/DISKID,RANDMM(NBPTS),GRID(NBPTS),ULABEL(NBPTS),

0023

STYPR,PTN

/TRIRLOCKS/MS

1TYPE(NDDTS),RECL2C

0024

DATA PRTYPE/0/

0025

EXFL = 1

0026

10

CALL HSEKPG (4)

0027

WRITE (6,100) N,TYPE(N),PRTYPE

0028

100

FORMAT (1H0,' PREVIOUS TYPE FOR DDT NUMBER ',I3,' IS ',I1,

1 /,'S DEFAULT TYPE IS ',I1,' ')

0029

CALL ZUTPUT (7)

0030

READ (6,200) INPUT

0031

200

FORMAT(74A1)

0032

CALL FRONT (INPUT,74)

0033

IF (INPUT(1) .EQ. 'X') RETURN

0034

IF (INPUT(1) .EQ. 'B') GO TO 9999

0035

IF (INPUT(1) .EQ. ' ') GO TO 8000

0036

IP = 0

0037

CALL INTEF (IP,INPUT,74,NEWT)

0038

IF (NEWT .LT. 0 .OR. NEWT .GT. 2) GO TO 10

0039

PRTYPE = NEWT

0040

8000

CALL HSEKPG (2)

0041

WRITE (6,300) PRTYPE,N

0042

300

FORMAT (1H0,' TYPE ',I1,' FOR DDT NUMBER ',I3)

0043

IF (TYPE(N) .EQ. 1) NTYPE1 = NTYPE1 + 1

0044

IF (PRTYPE .EQ. 1) NTYPE1 = NTYPE1 + 1

0045

TYPE(N) = PRTYPE

0046

UFLAG3 = 1

0047

CONTINUE

0048

9999

EXFL = 0

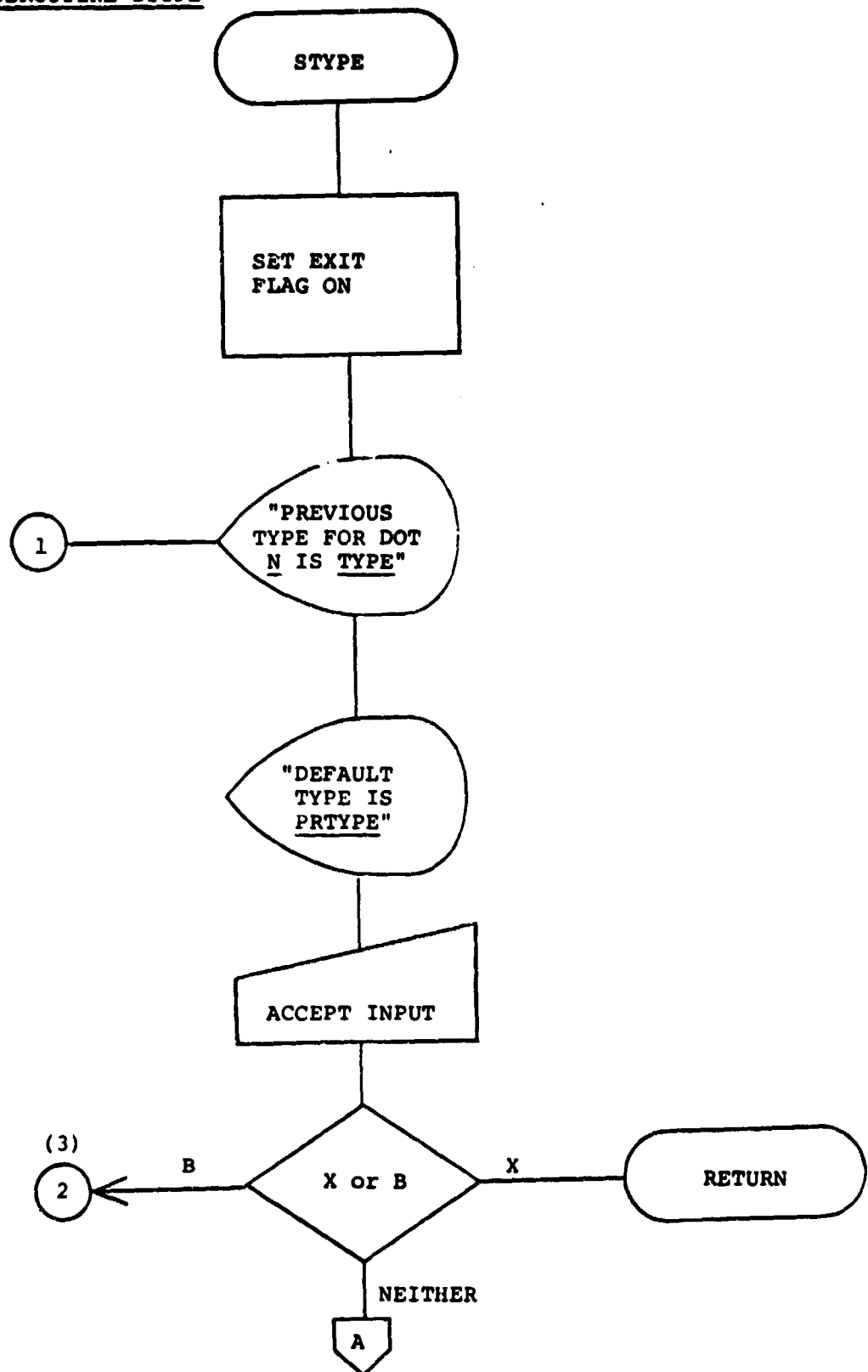
0049

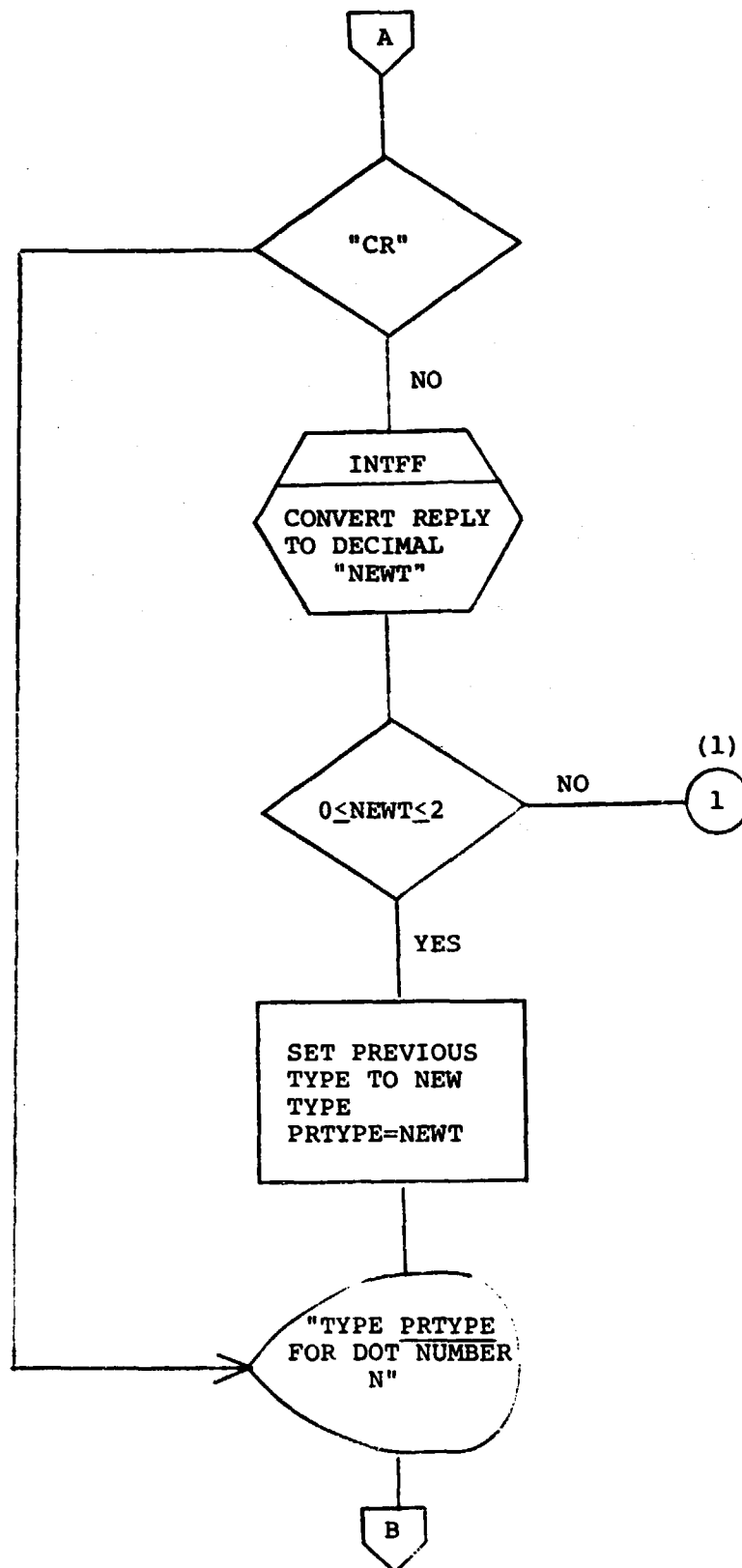
RETURN

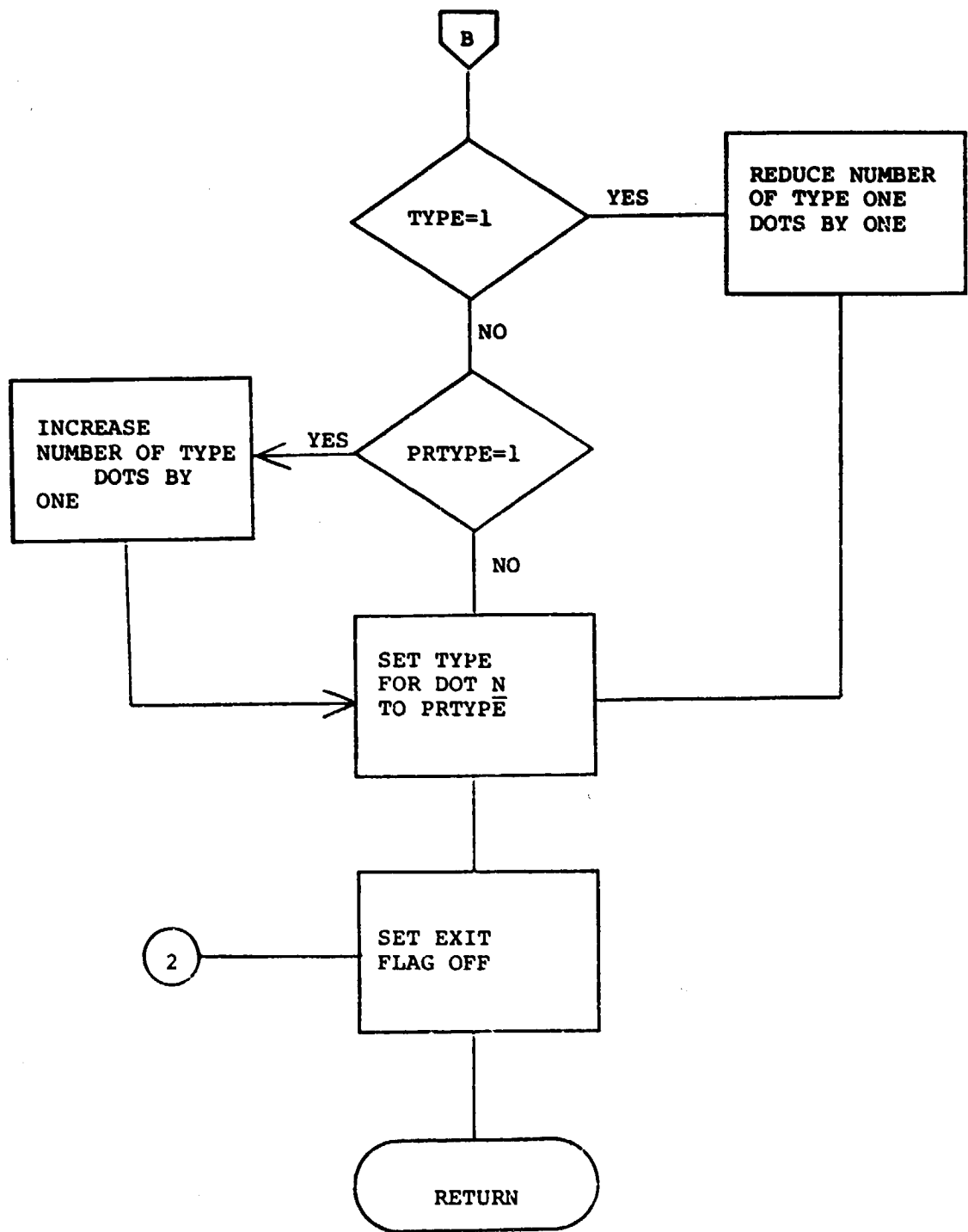
0050

END

13.1 SUBROUTINE STYPE







13.2 SUBROUTINE FINDOT

```

HEATTRAN IV-PLUS V02-04                      12146131    29-AUG-77          PAGE 1
FINDOT.FTN      /TRIPLECKS/WR
0001      SUBROUTINE FINDOT(N,EXFL)
C
C
C
0002      IMPLICIT INTEGER (A-Z)
C
C
0003      BYTE INPUT(74),SELDEF
C
C
C
0004      INCLUDE 'SYI(300,3)CAMSCAMRN.INC'
0005      INCLUDE 'SYI(300,3)CAMSPARM.INC'
0006      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLINE=117,MAXFLD=50
C
C      1,MAXV=11,NDOTS=209,DLSKIP=10,DSSKIP=10,MAXACD=6,MAXACC=4,
C      2NOSP=6,NDDTWD=10
0007      EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,IX1),(C5,DISKID)
0008      INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)
C
C
0009      INTEGER ACDATE,SINCAT,SUPP,P,CATKNT,CATTH
0010      BYTE CHAVEC,NZCHAN,NOSUB,DZTCAT,DZTCLU
0011      COMMON/COMMON1/ACDATE(2,MAXACC),CHAVEC(MAXCHN,MAXACC),NZCHAN,NOSUB,
C      1SUBCAT(MAXSUB),SUBSEP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NDDP,
C      2NDDP, DZTH,DZTCAT(NDOTS),DZTCLU(NDOTS)
C
C
0012      INTEGER ACDATES,SUBCAT,ANALST,FLDDAY,DZTDAY,PDATE1,TDATE1
0013      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDOM,GRID
0014      BYTE DZFLC,NVACC,NZILGR,SINFL,NSTART,NTYPE1,ALP,ALP0
0015      BYTE PCTCT,PCTCT0,VAR,VAR0,DZLAPL,TYPE
0016      COMMON/COMMON2/ISEG,DZFLC,NVACC,ACDATES(2,MAXACC),SINFLGR(MAXACC),
C      1SINFL(MAXACC),SUNAT(MAXACC),TDATE(2),ANALST(5),FLDDAY(2),
C      2DZTDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
C      3PDATE3(2),TDATE3(2),SINCAT,CATNAM(MAXCAT),ALP(MAXCAT),ALP0,
C      4PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0
C
C
0017      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
C      1UFLAG4
0018      INTEGER PFLAG,DSKNT
0019      COMMON/COMMON3/PFLAG,DSKNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1
C      1,UFLAG2,UFLAG3,UFLAG4,EFLAG(MAXSUB)
C
C
0020      INTEGER IX1,IX2,IX3,IX4,ACDISP,G,E,DTWIND,DZTARY,GMIN,GMAX,FUL
0021      INTEGER SP,IND,CLAWND,CLUWND
0022      COMMON/COMMON4/IX1,IX2,IX3,IX4,IX1,IX2,IX3,IX4,ACDISP(2),I11(4),G(4),
C      1I(4),I1(5),NDDTWD,SP,IND(5),NDDTWD,INDWIND(4),NUMDOT,
C      2DZTARY(NDOTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)
C      3COMMON/COMMON5/DISKID,RANDOM(NDOTS),GRID(NDOTS),DLAPL(NDOTS),
C      1TYPE(NDOTS),RECLFC
C
C
C
0024      DIMENSION DZTARY(NDOTS),XANY(5),XYCORD(418),DZTNS(209)
0025      DIMENSION WT(5,NOSPND),IT(4)
C
C
C
0026      EQUIVALENCE (SPWIND,WT),(INDWIND,IT)

```

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0027 EXFL = 0

0028 FR1 = 1

0029 FR2 = 3

0030 SELDEF = 'K'
 0031 10 CALL HSEKPG(5)
 0032 WRITE (6,100) SELDEF
 0033 100 FORMAT(1H0,' SELECT SINGLE DWT FROM THE',
 1 /,' CURRENT DWT (S)ELECTION',
 2 /,' (K)EYBOARD OR',
 3 /,' (C)CURSOR (A1, >1)

0034 CALL OUTPUT(7)

0035 READ (6,200) INPUT
 0036 200 FORMAT(74A1)

0037 CALL FRONT(INPUT,74)
 0038 IF (INPUT(1).EQ.'K') GO TO 10
 0039 IF (INPUT(1).NE.'X') GO TO 20
 0040 9999 EXFL = 1
 0041 RETURN

0042 20 IF (INPUT(1).EQ.' ') GO TO 22
 0043 IF (INPUT(1).EQ.'K') GO TO 21
 0044 IF (INPUT(1).EQ.'S') GO TO 21
 0045 IF (INPUT(1).NE.'C') GO TO 10
 0046 21 SELDEF = INPUT(1)
 0047 22 IF (SELDEF.EQ.'S') GO TO 1000
 0048 IF (SELDEF.EQ.'K') GO TO 2000

0049 25 CALL HSEKPG(2)
 0050 WRITE (6,300)
 0051 300 FORMAT (//,' SELECT A DWT BY CURSOR AND ENTER "CR" ',
 1 /,' WHEN READY >1)

0052 CALL OUTPUT(7)

0053 READ (6,200) INPUT

0054 CALL FRONT(INPUT,74)
 0055 IF (INPUT(1).EQ.'X') GO TO 9999
 0056 IF (INPUT(1).EQ.'S') GO TO 10
 0057 IF (INPUT(1).NE.' ') GO TO 25

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```

C
C
0058      CALL IRK (XANDY)
C
0059      ULX = XANDY(2) - 2*(XANDY(3))
0060      ULY = XANDY(4) - 2*(XANDY(3))
0061      LRY = XANDY(2) + 2*(XANDY(3)) + 2
0062      LRY = XANDY(4) + 2*(XANDY(3)) + 2
C
C
C
0063      D = 1
C
C
0064      OPEN (UNIT=FR1,TYPE='UNKNOWN',NAME='(300,1)DPTGXY.TMP',
1         RECFD=NDOTS,MAXREC=1,ACCESS='SEQUENTIAL',
2         FPRN='UNFORMATTER')
C
0065      OPEN (UNIT=FR2,TYPE='UNKNOWN',NAME='(300,1)SCATXY.TMP',
1         RECFD=NDOTS,MAXREC=NDSPWD,ACCESS='DIRECT')
C
C
C
0066      DO 340 I=1,N2SPWD
0067      IF (SPKIND(1,I).EQ. 0) GO TO 340
0068      IF (ULX.EQ. WT(2,I),OR, ULX.GT. WT(2,I)) GO TO 310
0069      GO TO 340
0070      310 IF (LRY.EQ. WT(4,I),OR, LRY.LT. WT(4,I)) GO TO 320
0071      GO TO 340
0072      320 IF (ULY.EQ. WT(3,I),OR, ULY.GT. WT(3,I)) GO TO 330
0073      GO TO 340
0074      330 IF (LRY.EQ. WT(5,I),OR, LRY.LT. WT(5,I)) GO TO 390
0075      340 CONTINUE
C
C
0076      IF (ULX.EQ. IT(1),OR, ULX.GT. IT(1)) GO TO 350
0077      GO TO 4000
0078      350 IF (LRY.EQ. IT(3),OR, LRY.LT. IT(3)) GO TO 360
0079      GO TO 4000
0080      340 IF (ULY.EQ. IT(2),OR, ULY.GT. IT(2)) GO TO 370
0081      GO TO 4000
0082      370 IF (LRY.EQ. IT(4),OR, LRY.LT. IT(4)) GO TO 380
0083      GO TO 4000
C
C
0084      390 READ (FR1) XYCORD
0085      GO TO 405
C
0086      390 READ (FR2) XYCORD
C
C
0087      405 CLOSE (UNIT=FR1,DISPOSE='SAVE')
0088      CLOSE (UNIT=FR2,DISPOSE='SAVE')
C
0089      DO 480 I=1,410,2
0090      X = XYCORD(I)

```



```

0091      Y = XYCORD(I+1)
0092      IF (X .LT. LRX) .OR. X .EQ. LRX) GO TO 410
0093      GO TO 480
0094      410  IF (X .GT. ULX) .OR. X .EQ. ULX) GO TO 420
0095      GO TO 480
0096      420  IF (Y .LT. LRY) .OR. Y .EQ. LRY) GO TO 430
0097      GO TO 480
0098      430  IF (Y .GT. ULY) .OR. Y .EQ. ULY) GO TO 440
0099      GO TO 480
0100      440  DOTS(D) = 1/2+1
0101      D = D + 1
0102      480  CONTINUE
0103      IF (D .GT. 1) GO TO 498
0104      490  CONTINUE
0105      IF (D .EQ. 1) GO TO 4000

C
C
0106      498  D = D + 1
0107      IF (D .EQ. 1) GO TO 5000

C
0108      499  IDLN = (D/10) + 5
0109      CALL HSEKPG (=1)
0110      CALL HSEKPG(IDLN)
0111      WRITE (6,510) (DOTS(I),I=1,D)
0112      510  FORMAT (1H0,' MULTIPLE DOTS FOUND WITHIN THE CURSOR',
1 /,(10(2X,I3)))
0113      WRITE (6,520)
0114      520  FORMAT (//,' SELECT ONE OF THE ABOVE DOTS >')

C
0115      CALL OUTPUT (7)

C
0116      READ (6,200) INPUT
0117      CALL FRONT (INPUT,74)
0118      IF (INPUT(1) .EQ. 'X') GO TO 9999
0119      IF (INPUT(1) .EQ. 'B') GO TO 10

C
0120      IP = 0
0121      CALL INTER (IP,INPUT,74,N)
0122      DO 580 I=1,D
0123      580  IF (DOTS(I) .EQ. N) RETURN
0124      CALL HSEKPG (2)
0125      WRITE (6,530)
0126      530  FORMAT (1H0,' SELECTED DOT IS NOT A MULTIPLE DOT')
0127      GO TO 499

C
C
C
0128      5000  N = DOTS(D)
0129      RETURN
C
C
C
C
C
C

```

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FORTTRAN IV-PLUS V02-04 12146131 29-AUG-77 PAGE 5
 FINDPT.FTN /TRIPLECKS/WR
 0130 4000 CALL HSEKPG (2)
 0131 WRITE (6,500)
 0132 500 FORMAT (1H0,' SELECTED DOT NOT FOUND')
 0133 CLOSE (UNIT=FR1,DISPOSE='SAVE')
 0134 CLOSE (UNIT=FR2,DISPOSE='SAVE')
 0135 GO TO 25

C
 C
 C
 0136 1000 IDLN = (NUMDOT/10) + 5
 0137 CALL HSEKPG (IDLN)
 0138 IF (NUMDOT.EQ. 0 OR NUMDOT.LT. 0) GO TO 3000
 0139 WRITE (6,900) (DOTARY(I),I=1,NUMDOT)
 0140 900 FORMAT (1H0,' CURRENT DOT SELECTION',
 1 /,(10(2X,13)))
 C
 0141 WRITE (6,520)
 C
 0142 CALL OUTPUT(7)
 C
 0143 READ (6,200) INPUT
 0144 CALL FRONT (INPUT,74)
 0145 IF (INPUT(1).EQ. 'X') GO TO 9999
 0146 IF (INPUT(1).EQ. 'B') GO TO 10
 C
 0147 IP = 0
 0148 CALL INTEF (IP,INPUT,74,N)
 0149 DO 910 I=1,NUMDOT
 0150 910 IF (DOTARY(I).EQ. N) RETURN
 0151 CALL HSEKPG (2)
 0152 WRITE (6,920)
 0153 920 FORMAT (1H0,' SELECTED DOT IS NOT IN CURRENT SELECTION')
 0154 GO TO 1000
 C
 C
 0155 3000 CALL HSEKPG (4)
 0156 WRITE (6,3100)
 0157 3100 FORMAT (1H0,' NO DOTS IN CURRENT SELECTION')
 0158 GO TO 10
 C
 C
 0159 2000 CALL HSEKPG (2)
 0160 WRITE (6,2100)
 0161 2100 FORMAT(//,'S INPUT DOT GRID NUMBER >')
 C
 0162 CALL OUTPUT(7)
 C
 0163 READ (6,2200) INPUT
 0164 2200 FORMAT (74A1)
 C
 0165 CALL FRONT (INPUT,74)
 0166 IF (INPUT(1).EQ. 'X') GO TO 9999
 0167 IF (INPUT(1).EQ. 'B') GO TO 10
 C
 0168 IP = 0
 0169 CALL INTEF (IP,INPUT,74,N)

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FINDOT,FTN

/YR,BLOCKS/WR

0170

IF (N.LT. 1 .OR. N.GT. NDOTS) GO TO 2000

C

0171

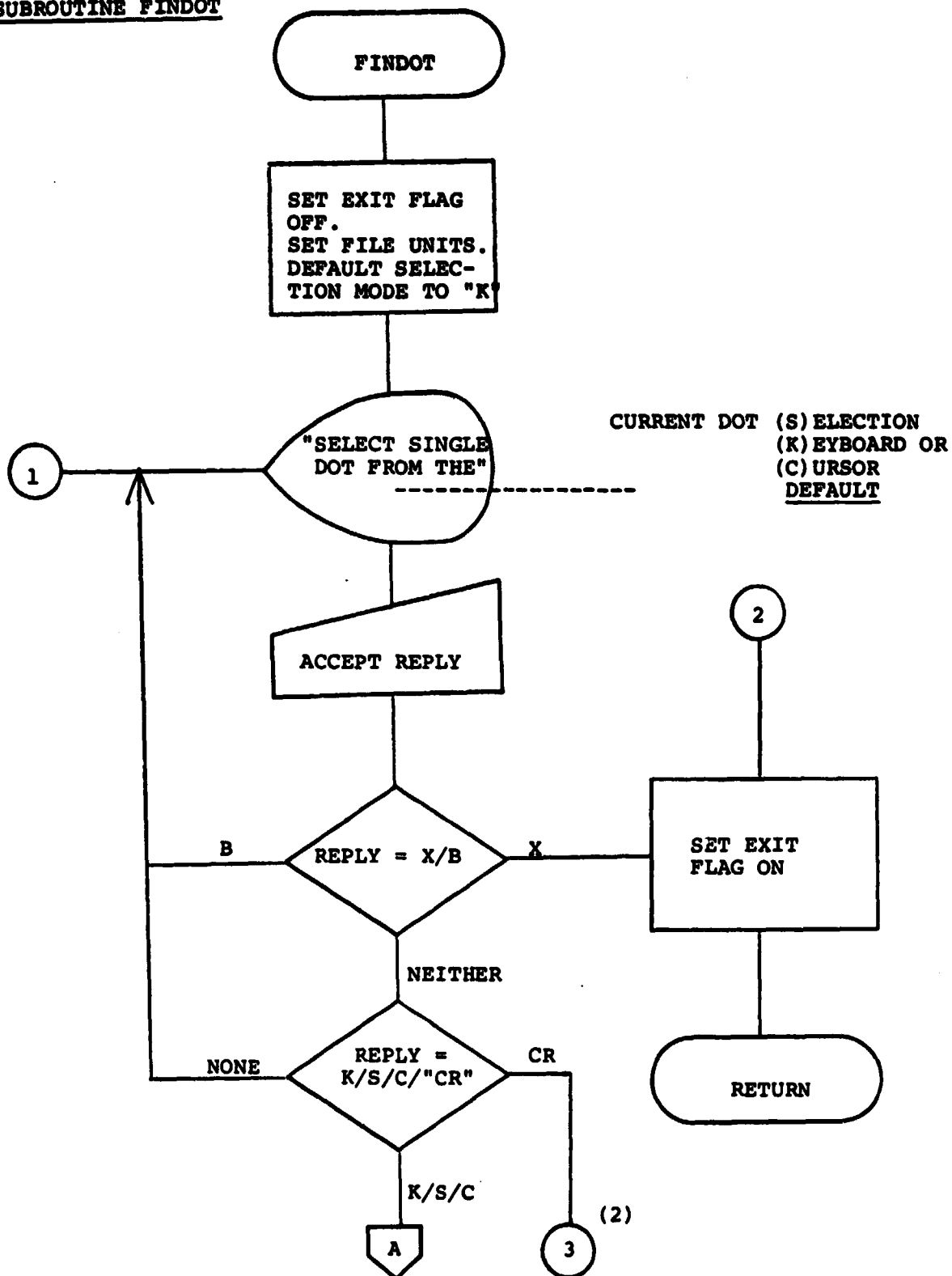
9000

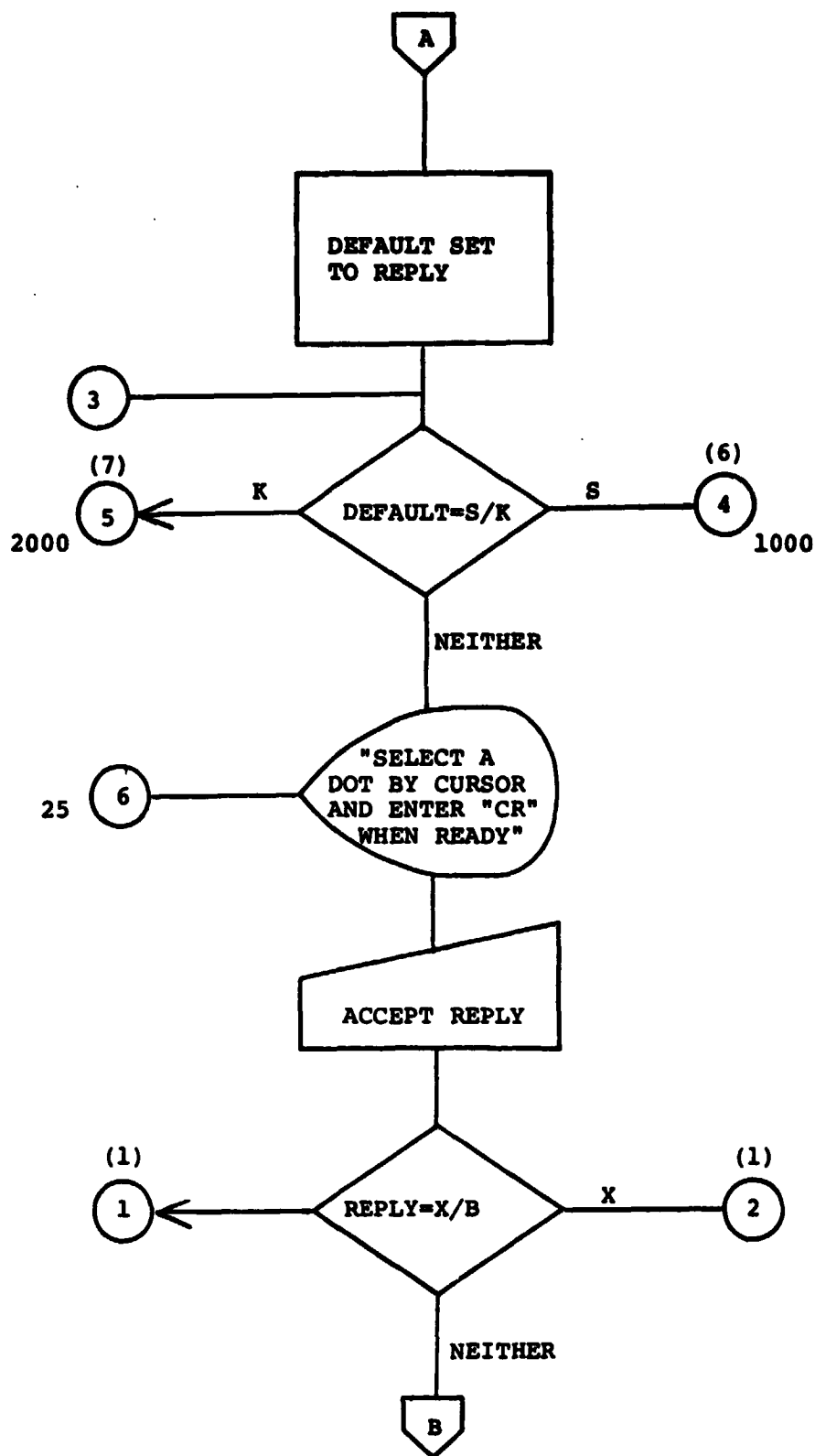
RETURN

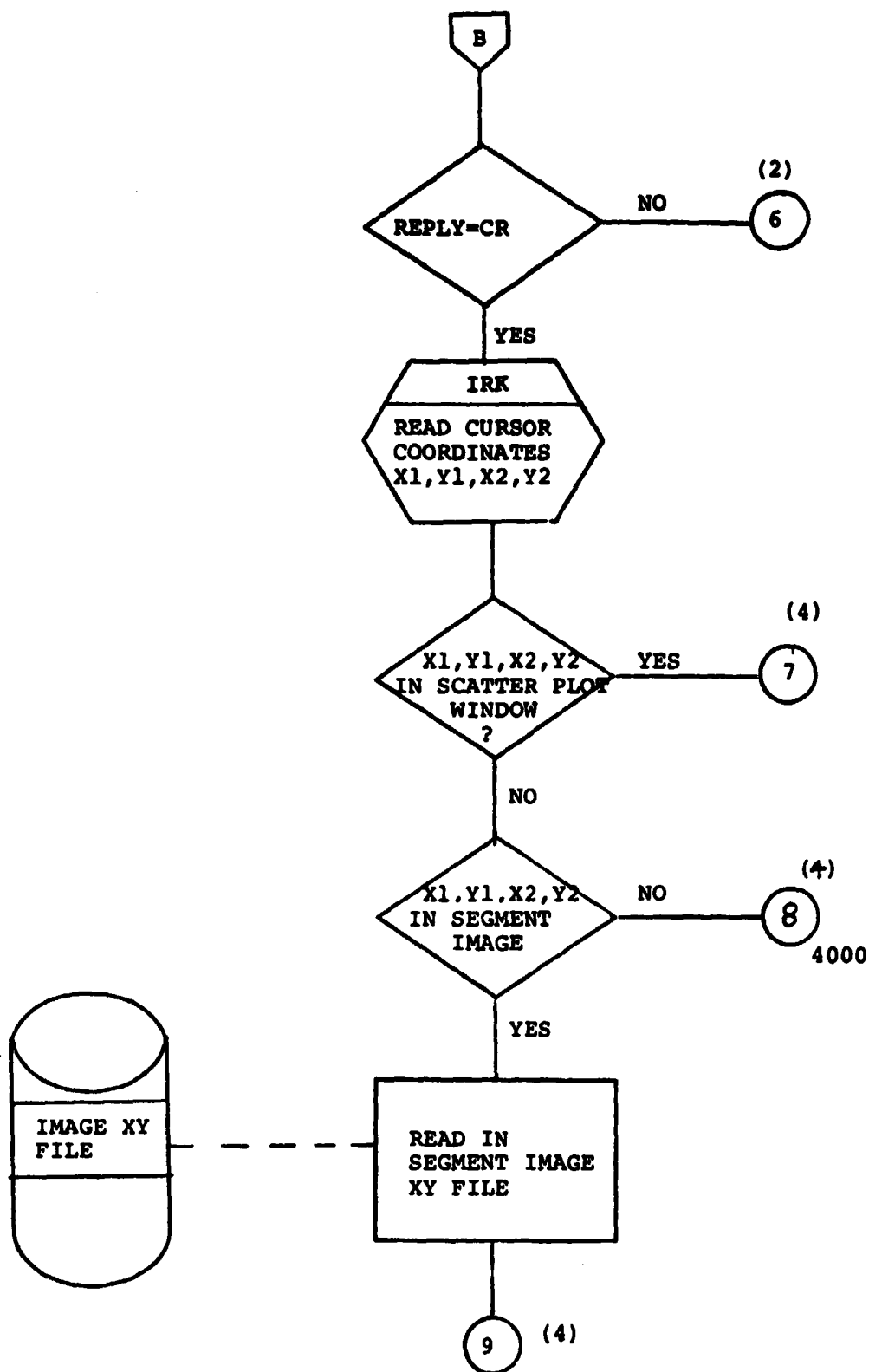
0172

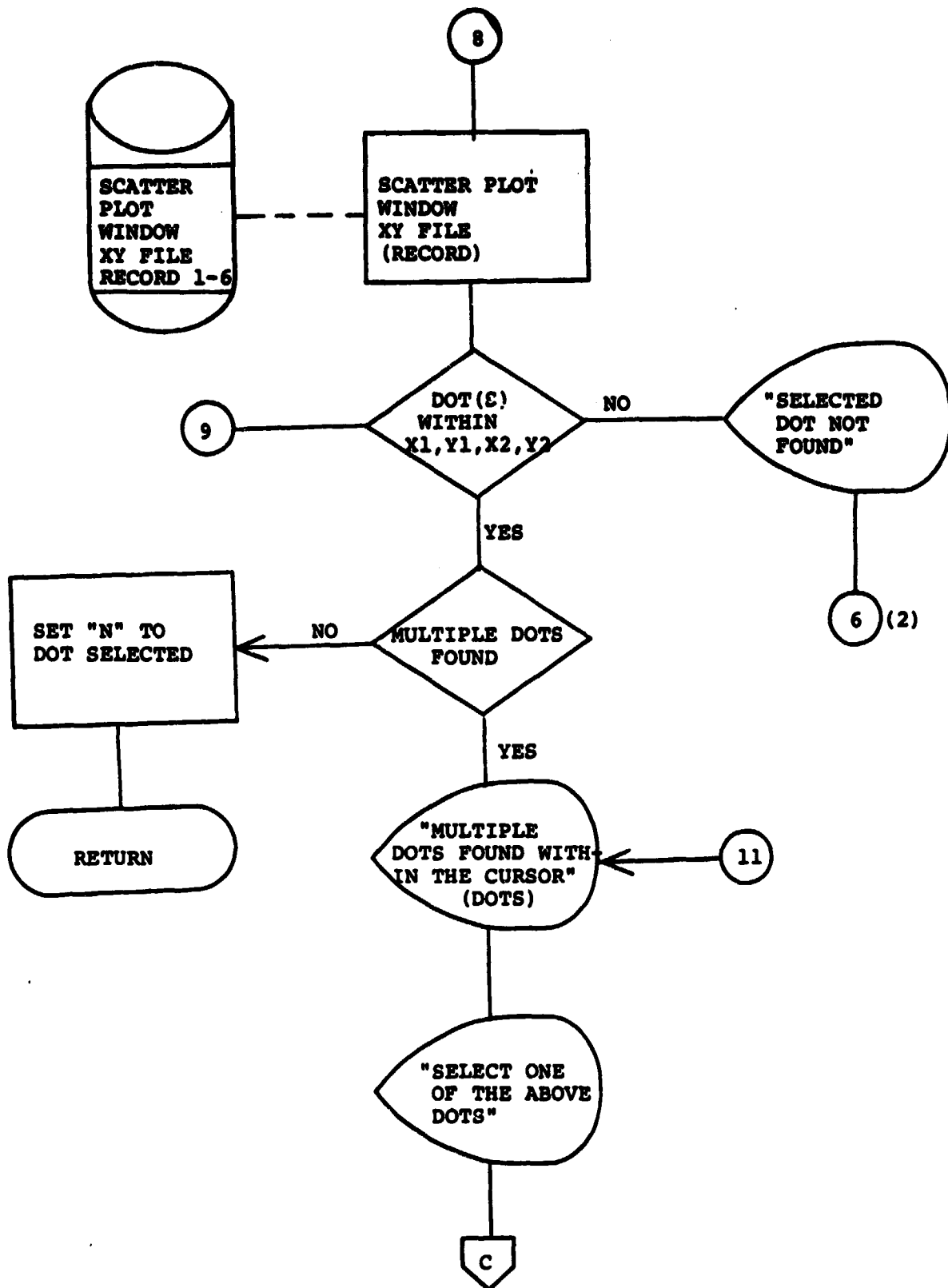
END

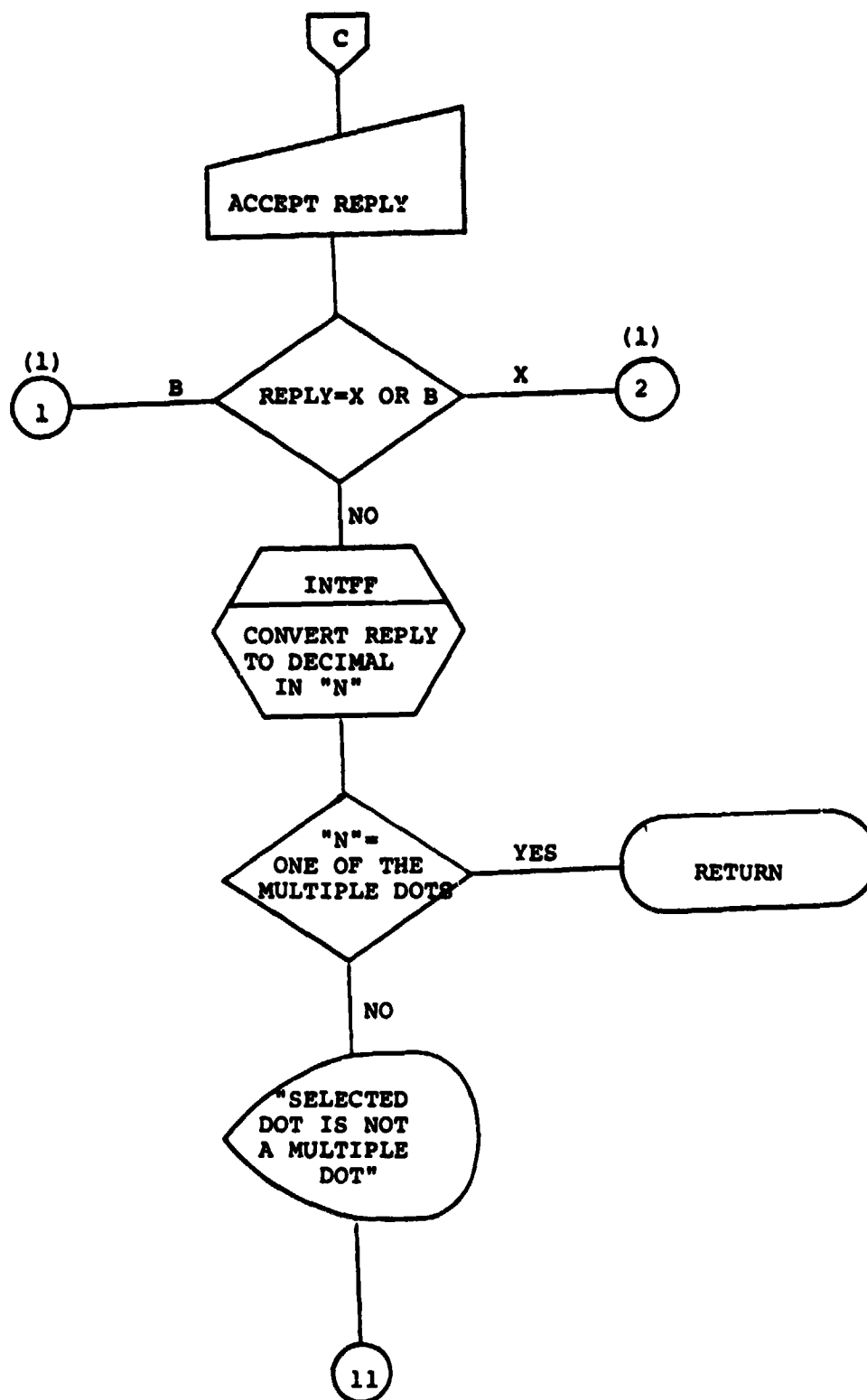
13.2 SUBROUTINE FINDOT

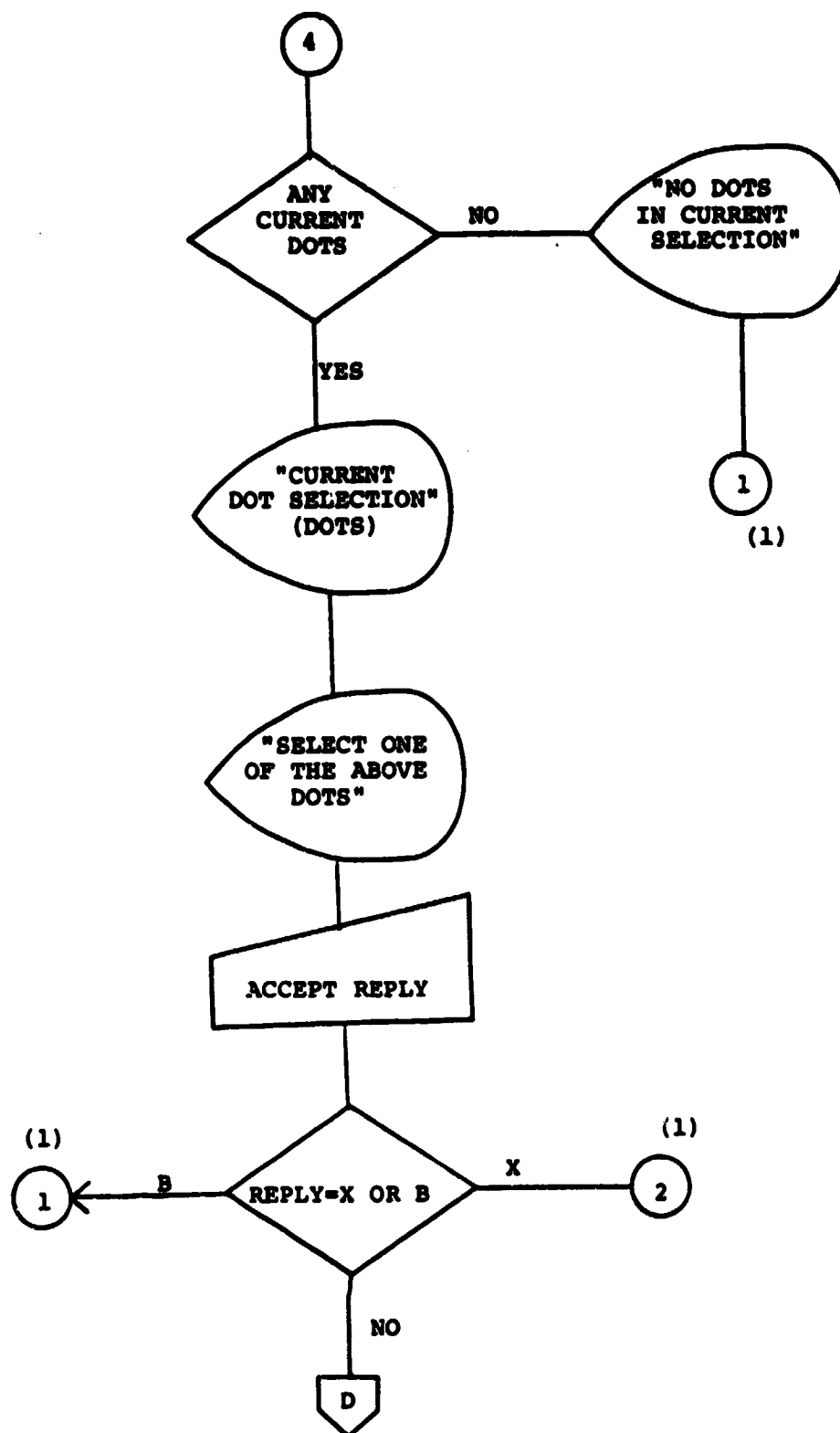


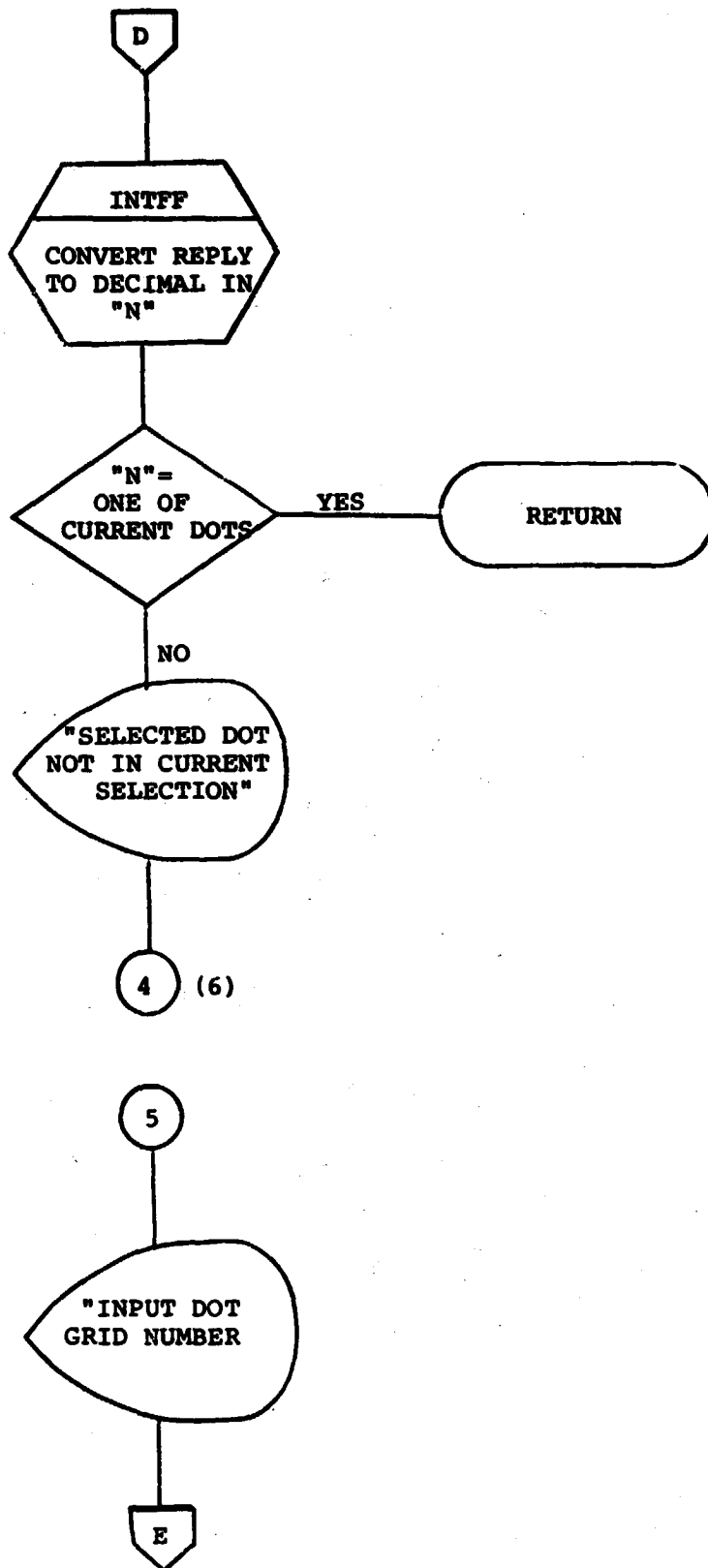


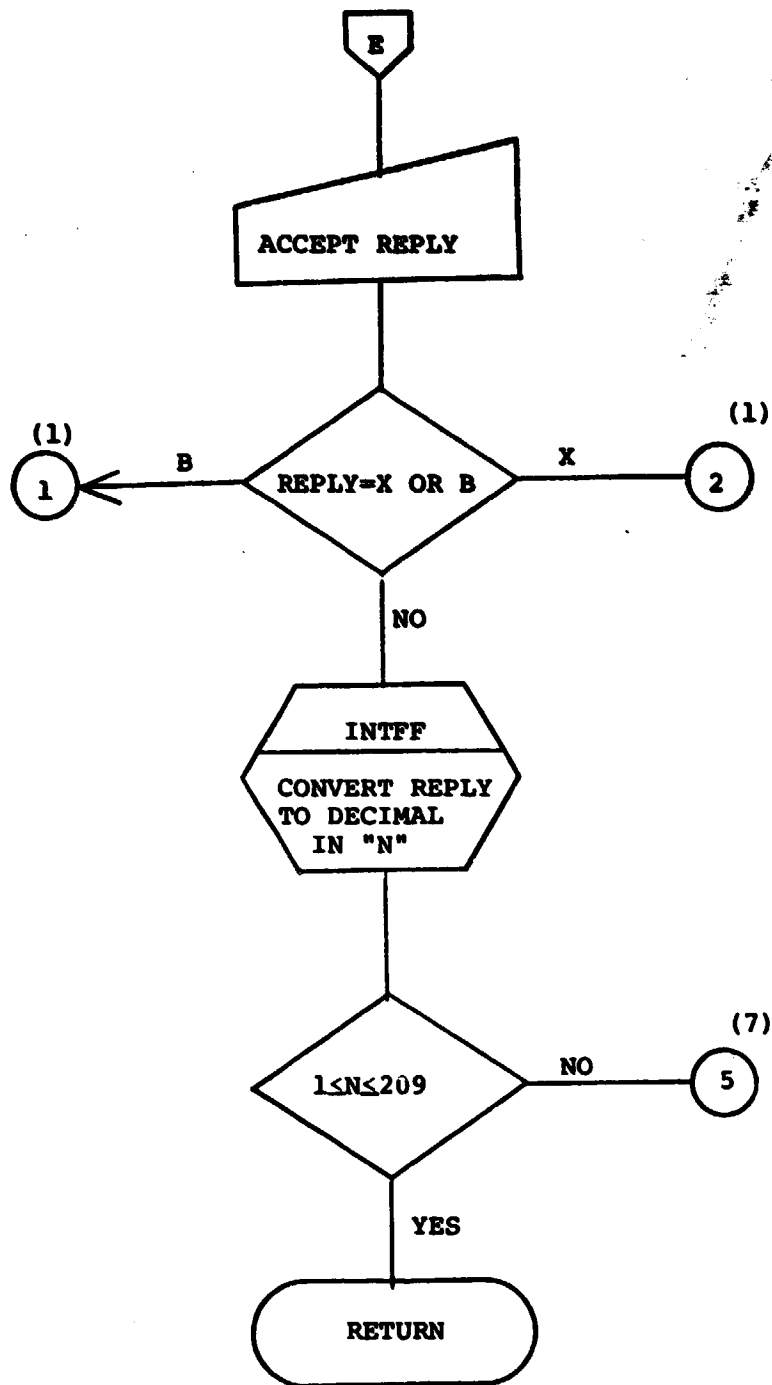












13.3 SUBROUTINE PROCED

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PAGE 1

PRCED,FTN /TRIPL0CKS/NR
0001 SUBROUTINE PRCED

C
C
0002 IMPLICIT INTEGER (A-Z)

C
C
0003 BYTE INPUT(74)

C
C
C

0004 WRITE (6,100)

0005 100 FORMAT (1H0,'S TO PROCEED HIT "CR" >')

C
0006 CALL OUTPUT (7)

0007 READ (6,200) INPUT

0008 200 FORMAT (74A1)

0009 RETURN

0010 END

13.3 SUBROUTINE PROCED

A flow chart for this subroutine is not available.

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13.4 SUBROUTINE DOTLAB

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PAGE 1

DOTLAB.FTN

/TRIBLOCKS/WR

0001 SUBROUTINE DOTLAB (EXFL,N)

C

C

CC

C

C

DOT LABELING ROUTINE

C

C

CC

C

C

C

0002

IMPLICIT INTEGER (A-Z)

C

C

0003

BYTE INPUT(74)

0004

BYTE DEFLT(2),PIGLAB(10),PLAP(10)

0005

BYTE WOLD(2)

C

C

C

0006

INCLUDE 'SYIC300,3JCAMSCOMON.INC'

0007

INCLUDE 'SYIC300,3JCAMSPARAM.INC'

0008

PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=50,
1,MAXV=11,NDOTS=209,DLSKIP=10,DSSKIP=10,MAXACD=6,MAXACC=4,
2NOSPWD=6,NPDWID=10

0009

EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,IX1),(C5,DISKID)

0010

INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)

C

0011

INTEGER ACDATE,SUBCAT,SURPOP,CATKNT,CATTH

0012

BYTE CHNVEC,NCHAN,NOSUB,DOTCAT,DOTCLU

0013

COMMON/C0M1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NCHAN,NOSUB,
1SURCAT(MAXSUR),SURPOP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NPDW,
2NODU,NPDW,DOTCAT(NDOTS),DOTCLU(NDOTS)

C

0014

INTEGER ADATE,SUNAZ,ANALST,FLDDAY,DOTDAY,PDATE1,TDATE1

0015

INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDOM,GRID

0016

BYTE DELFLG,NACD,S2ILGR,SUNEL,NSTART,NTYPE1,ALP,ALP0

0017

BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE

0018

COMMON/C0M2/ISEG,DEFLG,NACC,ADATES(2,MAXACD),S2ILGR(MAXACD),
1SUNEL(MAXACD),SUNAZ(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),
2DOTDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
3PDATE3(2),TDATE3(2),NOCAT,CATNAM(MAXCAT),ALP(MAXCAT),ALP0,
4 PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0

C

0019

INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
1UFLAG4

0020

INTEGER PFLAG,DSKINT

0021

COMMON/C0M3/PFLAG,DSKINT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,
1,UFLAG2,UFLAG3,UFLAG4,NEWLAB(MAXSUB)

C

0022

INTEGER TX1,TY1,TX2,TY2,ACDISP,G,B,DWIND,DOTARY,GMIN,GMAX,FUL

0023

INTEGER SPWIND,CLAND,CLUWD

0024

COMMON/C0M4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I11(4),G(4),

DETLAB,FIN /TRIPLECKS/WR

```

*      1B(4),DTWIND(5,NDOTS),SPWIND(5,NOSPHD),IMWIND(4),NUMDOT,
*      2DBTARY(NDOTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)
0025 *      COMMON/COMMON/DISKID,RANDON(NDOTS),GRID(NDOTS),DLABEL(NDOTS),
*      1TYPE(NDOTS),RECLAC

```

```

0026      EQUIVALENCE (HOLD(1),CATH),(PLAB(1),PLAB1)

```

```

0027      DATA DEFLT(1),DEFLT(2)/' ',' '/
0028      DATA HPLD(1),HPLD(2)/'W',' '/
0029      DATA BIGLAB/'W',' ',' ',' ',' ',' ',' ',' ',' ',' ',' ',' ',' '

```

```

0030      GO 1 D=1,10
0031      1      PLAB(D) = ' '
0032      IF (DLABEL(N),EQ, 0) GO TO 2
0033      IF (DLABEL(N),EQ, -1) GO TO 3
0034      IF (DLABEL(N),EQ, -2) GO TO 4
0035      PLAB1 = CATNAM (DLABEL(N))
0036      GO TO 6
0037      2      PLAB(1) = 'U'
0038      PLAB(2) = 'N'
0039      PLAB(3) = 'L'
0040      PLAB(4) = 'A'
0041      PLAB(5) = 'B'
0042      PLAB(6) = 'E'
0043      PLAB(7) = 'L'
0044      PLAB(8) = 'E'
0045      PLAB(9) = 'D'
0046      GO TO 6
0047      3      PLAB(2) = 'O'
0048      GO TO 5
0049      4      PLAB(2) = 'U'
0050      5      PLAB(1) = 'D'

```

```

0051      6      EXFL = 0

```

```

0052      10      CALL HSEKPG (4)
0053      WRITE (6,100) N,PLAB,BIGLAB
0054      100      FORMAT (1H0,' PREVIOUS LABEL FOR DAT NUMBER ',I3,' IS ',
1      10'1,/' 'S DEFAULT LABEL IS ',10A1,' >')

```

```

0055      CALL OUTPUT (7)

```

```

0056      READ (6,200) INPUT
0057      200      FORMAT (74A1)
0058      CALL FRONT (INPUT,74)

```

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```

FORTRAN IV-PLUS V02-04      12147135      29-AUG-77      PAGE 3
DBTLAB.FTN      /TRIBLOCKS/HR
0059      IF (INPUT(1) .EQ. ' ') GO TO 400
0060      HOLD(1) = INPUT(1)
0061      HOLD(2) = INPUT(2)
      C
      C
0062      IF (INPUT(1) .EQ. 'Z' .AND. INPUT(2) .EQ. 'Z') GO TO 600
      C
0063      215 DO 210 IL=1,NOCAT
0064      210 IF (CATH .EQ. CATNAM(IL)) GO TO 300
0065      IL = NOCAT + 1
0066      IF (IL .GT. MAXCAT) GO TO 1000
0067      CALL HSEKPG (3)
0068      WRITE (6,220) HOLD
0069      220 FORMAT (1H0,' LABEL ',2A1,' IS A NEW CATEGORY!')
      C
      C
0070      300 CALL HSEKPG (4)
0071      WRITE (6,310) HOLD,N
0072      310 FORMAT (//,'S LABEL ',2A1,' FOR DOT NUMBER ',I3,' (Y)ES/(N)O >')
      C
0073      CALL OUTPUT (7)
0074      READ (6,200) INPUT
0075      CALL FRONT (INPUT,74)
0076      IF (INPUT(1) .EQ. 'X') GO TO 9999
0077      IF (INPUT(1) .EQ. 'R') GO TO 10
0078      IF (INPUT(1) .EQ. 'N') GO TO 10
0079      IF (INPUT(1) .NE. 'Y') GO TO 300
      C
0080      UFLAG3 = 1
      C
0081      BIGLAB(1) = HOLD(1)
0082      BIGLAB(2) = HOLD(2)
0083      DO 305 I=3,9
0084      305 BIGLAB(I) = ' '
      C
      C
0085      320 DLABEL(N) = IL
0086      DEFLT(1) = HOLD(1)
0087      DEFLT(2) = HOLD(2)
      C
0088      IF (IL .GT. NOCAT) GO TO 500
0089      RETURN
      C
      C
0090      400 HOLD(1) = DEFLT(1)
0091      HOLD(2) = DEFLT(2)
0092      IF (DEFLT(1) .EQ. 'Z' .AND. DEFLT(2) .EQ. 'Z') GO TO 600
0093      GO TO 215
      C
      C
      C
      C
0094      500 NOCAT = NOCAT + 1
0095      CATNAM(NOCAT) = CATH
0096      RETURN
      C

```


FORTRAN IV-PLUS V02-04
DET LAB.FTN /TRILLOCKS/WR

12147135

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PAGE 4

0097 600 CALL HSEKPG (4)
0098 WRITE (6,610) N
0099 610 FORMAT (//,'S NO LABEL FOR DET NUMBER ',13,' (Y)ES/(N)O >')

0100 CALL OUTPUT (7)
0101 READ (6,200) INPUT
0102 CALL FRONT (INPUT,74)
0103 IF (INPUT(1).EQ.'X') GO TO 9999
0104 IF (INPUT(1).EQ.'B') GO TO 10
0105 IF (INPUT(1).EQ.'V') GO TO 10
0106 IF (INPUT(1).EQ.'Y') GO TO 600
0107 HIGLAB(1) = 'U'
0108 HIGLAB(2) = 'N'
0109 HIGLAB(3) = 'L'
0110 HIGLAB(4) = 'A'
0111 HIGLAB(5) = 'B'
0112 HIGLAB(6) = 'E'
0113 HIGLAB(7) = 'L'
0114 HIGLAB(8) = 'E'
0115 HIGLAB(9) = 'D'
0116 IL = 0
0117 GO TO 320

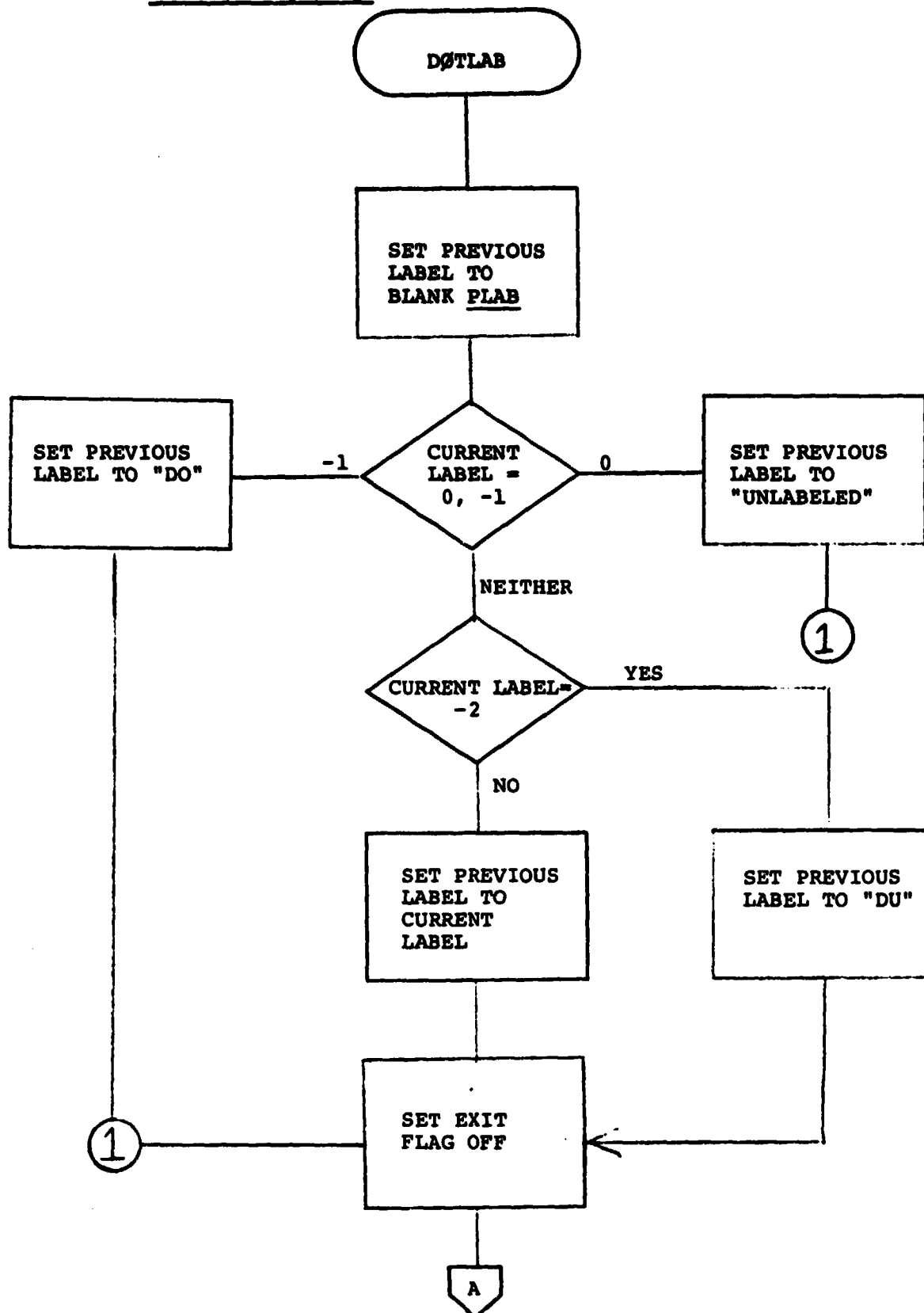
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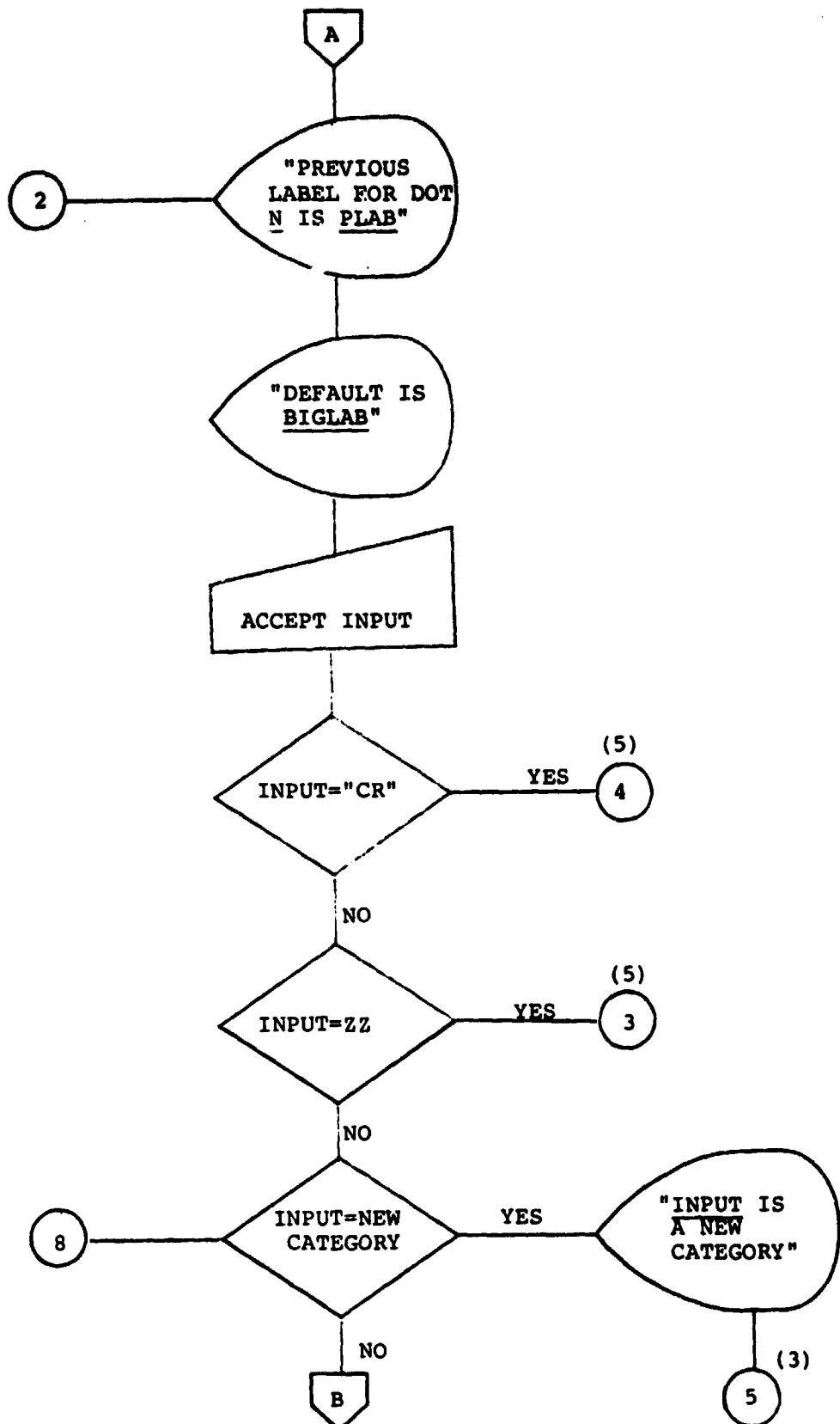
0118 1000 CALL HSEKPG (4)
0119 WRITE (6,1100)
0120 1100 FORMAT (1H0,' MAXIMUM CATEGORIES CANNOT BE EXCEEDED')
0121 RETURN

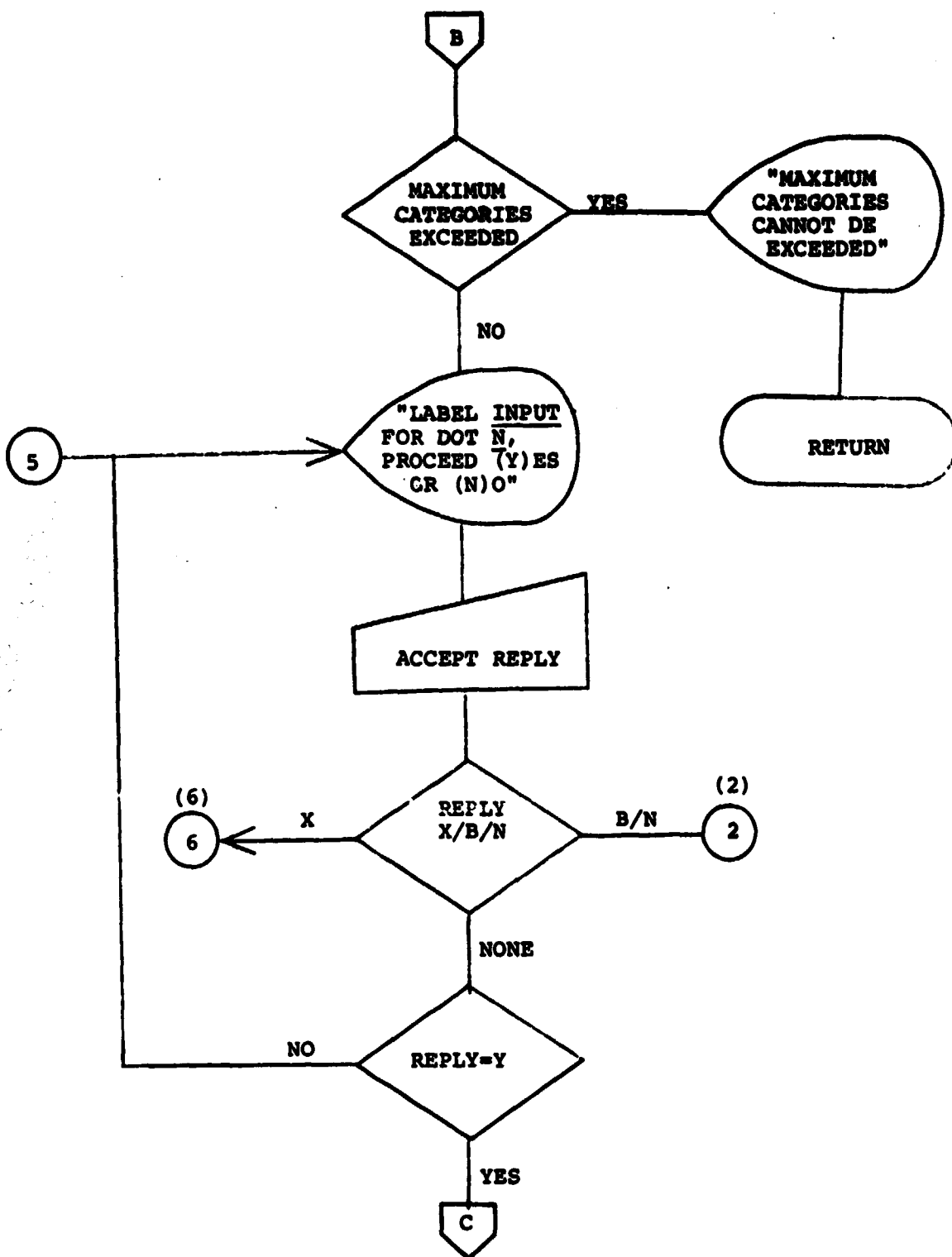
0122 9999 EXPL = 1
0123 RETURN

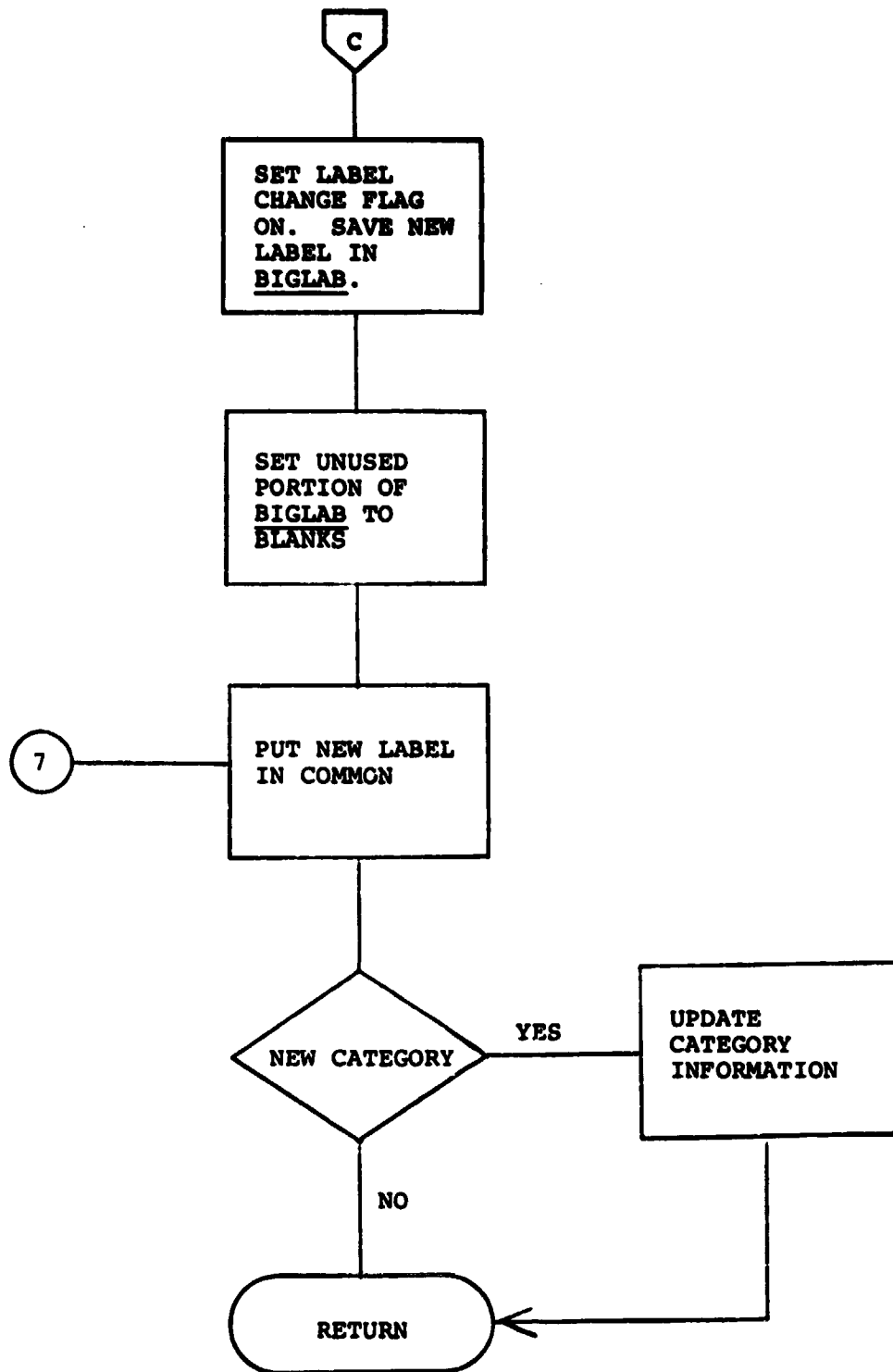
0124 END

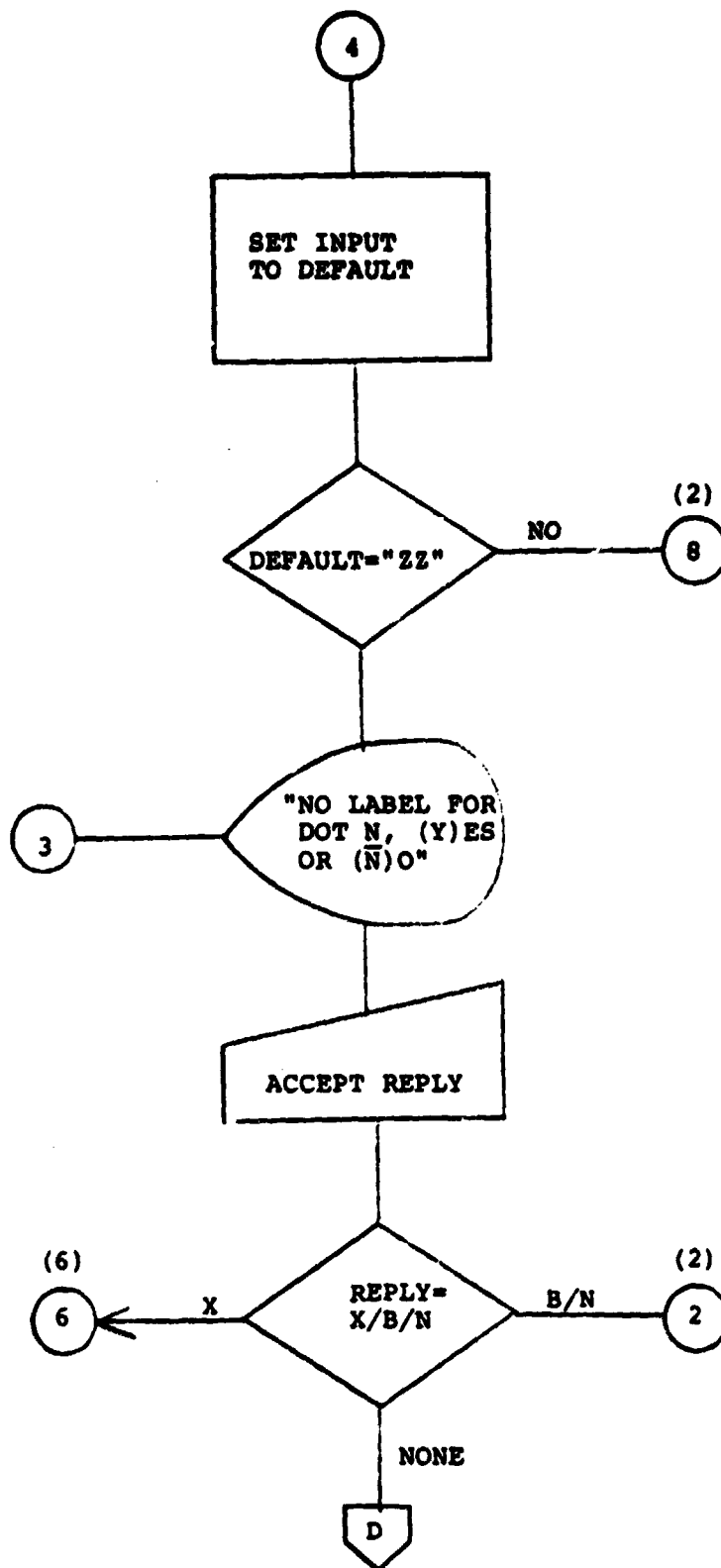
13.4 SUBROUTINE DOTLAB

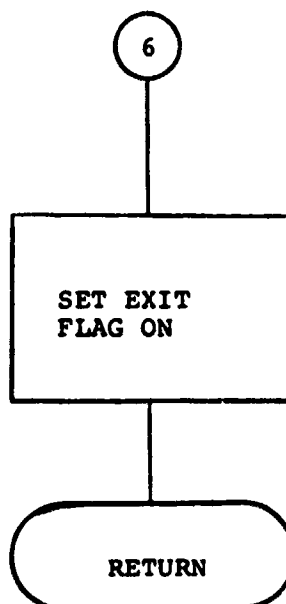
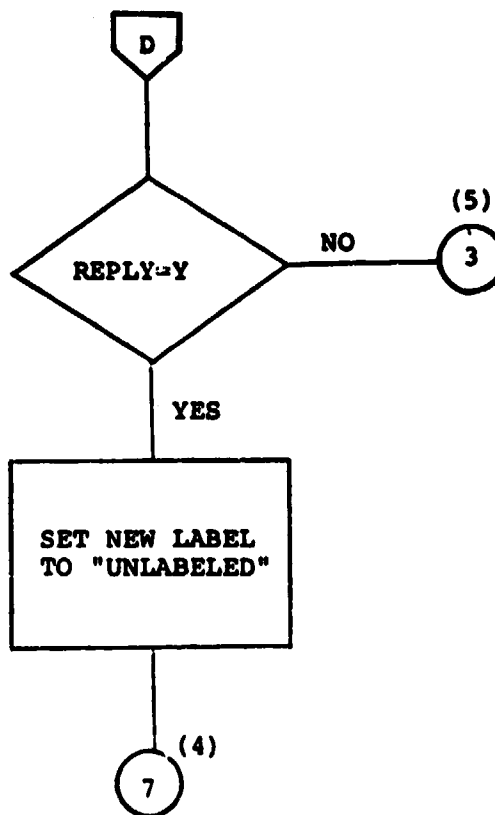












13.5 SUBROUTINE HSEKPG

HF0RTRAN IV-PLUS V02-04

12148109

29-AUG-77

PAGE 1

HSEKPG.FTN

/TRIBLOCKS/WR

0001

SUBROUTINE HSEKPG (SCRNLC)

C

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C

C

C

C

C

C

C

C

C

C

C

C

C

0002

IMPLICIT INTEGER (A-Z)

0003

DATA SCRNET/0/

0004

IF (SCRNLC .EQ. -1) GO TO 100

0005

SCRNET = SCRNET + SCRNLC

0006

IF (SCRNET .LT. 25) RETURN

0007

100

CALL OUTPUT (27,12)

0008

SCRNET = 0

0009

RETURN

0010

END

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13.5 SUBROUTINE HSEKPG

A flow chart for this subroutine is not available.

13.6 SUBROUTINE BLOWUP

HFTRAN IV-PLUS V02-04

12148125

29-AUG-77

PAGE 1

BLOWUP,FTN

/TRIBLOCKS/WR

0001

SUBROUTINE BLOWUP (EXFL)

C

C

CC

C

C

C

CIR IMAGE AREA BLOWUP ROUTINE

C

C

CC

C

C

C

C

0002

IMPLICIT INTEGER (A-Z)

C

C

0003

BYTE INPUT(74),TBUF(512),NBUF(512)

C

C

C

0004

INCLUDE 'SYIC300.3JCAMSCOMON.INC'

0005 *

INCLUDE 'SYIC300.3JCAMSPARAM.INC'

0006 *

PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=50

*

1,MAXV=11,NDOTS=209,DLSKIP=10,DSSKIP=10,MAXACD=6,MAXACC=4,

*

2,NDSPLC=6,NDDTKD=10

0007 *

EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,TX1),(C5,DISKID)

0008 *

INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)

*

C*

0009 *

INTEGER ACDATE,SUBCAT,SUBPRP,CATKNT,CATTH

0010 *

BYTE CHNVEC,NCHAN,NOSUB,DTCAT,DOTCLU

0011 *

COMMON/COM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NCHAN,NOSUR,

*

1,SUBCAT(MAXSUR),SUBPRP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NDDP,

*

2,NDDU,NDDTH,DTCAT(NDOTS),DOTCLU(NDOTS)

*

C*

0012 *

INTEGER ADATES,SUNAZ,ANALST,FLDDAY,DOTDAY,PDATE1,TDATE1

0013 *

INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDRM,GRID

0014 *

BYTE DELFLG,NBACC,S0ILGR,SUNEL,NSTART,NTYPE1,ALP,ALP0

0015 *

RYTE PCTCT,PCTCT0,VAR,VAR0,DLAPL,TYPE

0016 *

COMMON/COM2/ISEG,DEFLG,NBACC,ADATES(2,MAXACD),S0ILGR(MAXACD),

*

1,SUNEL(MAXACD),SUNAZ(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),

*

2,DOTDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),

*

3,PDATE3(2),TDATE3(2),NOCAT,CATNAM(MAXCAT),ALP(MAXCAT),ALP0,

*

4 PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0

*

C*

0017 *

INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,

0018 *

1,UFLAG4

0019 *

INTEGER PFLAG,DSKMT

*

COMMON/COM3/PFLAG,DSKMT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1

*

1,UFLAG2,UFLAG3,UFLAG4,NEULAB(MAXSUR)

*

C*

0020 *

INTEGER TX1,TY1,IX2,TY2,ACDISP,G,G,DTWIND,DOTARY,GMIN,GMAX,FUL

0021 *

INTEGER SPWIND,CLAWND,CLUWND

0022 *

COMMON/COM4/TX1,TY1,IX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I11(4),G(4),

*

1F(4),DTWIND(5,NDDTKD),SPWIND(5,NDSPLC),IMWIND(4),NUMDOT,

2,DOTARY(NDOTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)

C



BLOWUP,FTN

/TR:BLOCKS/HR

- 1 /, ' CORNER OF THE DESIRED LOCATION FOR THE',
- 2 /, 'S DOT BLOWUP AND ENTER "CR" WHEN READY. >')

```

0052      C      CALL ZUTPUT (7)
0053      C      READ (6,200) INPUT
0054      IF (INPUT(1) .EQ. 'X') GO TO 9999
0055      IF (INPUT(1) .EQ. 'B') GO TO 10
0056      IF (INPUT(1) .NE. ' ') GO TO 20

0057      C      CALL IRK (XYIN)
0058      CALL WAIT

0059      C
0060      ULX0 = XYIN(2)
0061      ULY0 = XYIN(4)
0062      LRX0 = (LRXI = ULXI)*2 + 1 + ULX0
0063      LRY0 = (LRYI = ULYI)*2 + 1 + ULY0

0064      XYOUT(1) = 0
0065      XYOUT(2) = (ULX0 + LRX0 - 2)/2
0066      XYOUT(3) = (LRX0 - ULX0 - 2)/4
0067      XYOUT(4) = (ULY0 + LRY0 - 2)/2
0068      XYOUT(5) = (LRY0 - ULY0 - 2)/4

0069      C      CALL IRK (XYOUT)
0070      CALL WAIT

0071      C
0072      30      CALL HSEKPG (1)
0073      WRITE (6,400)
0074      400      FORMAT (/,'S PROCEED (YES/NO) >')

0075      C
0076      CALL ZUTPUT (7)

0077      C
0078      READ (6,200) INPUT
0079      IF (INPUT(1) .EQ. 'X') GO TO 9999
0080      IF (INPUT(1) .EQ. 'B') GO TO 15
0081      IF (INPUT(1) .EQ. 'N') GO TO 15
0082      IF (INPUT(1) .NE. 'Y') GO TO 30

0083      C
0084      DO 500 I=1,N0DTW0
0085      500      IF (DTWIND(1,I) .EQ. 0) GO TO 600
0086      CALL HSEKPG (2)
0087      WRITE (6,510)
0088      510      FORMAT (1H0,' NO WINDOW TABLE SPACE AVAILABLE')
0089      RETURN

0090      C
0091      600      DTWIND(1,1) = 1
0092      DTWIND(2,1) = ULX0
0093      DTWIND(3,1) = ULY0
0094      DTWIND(4,1) = LRX0
0095      DTWIND(5,1) = LRY0

```



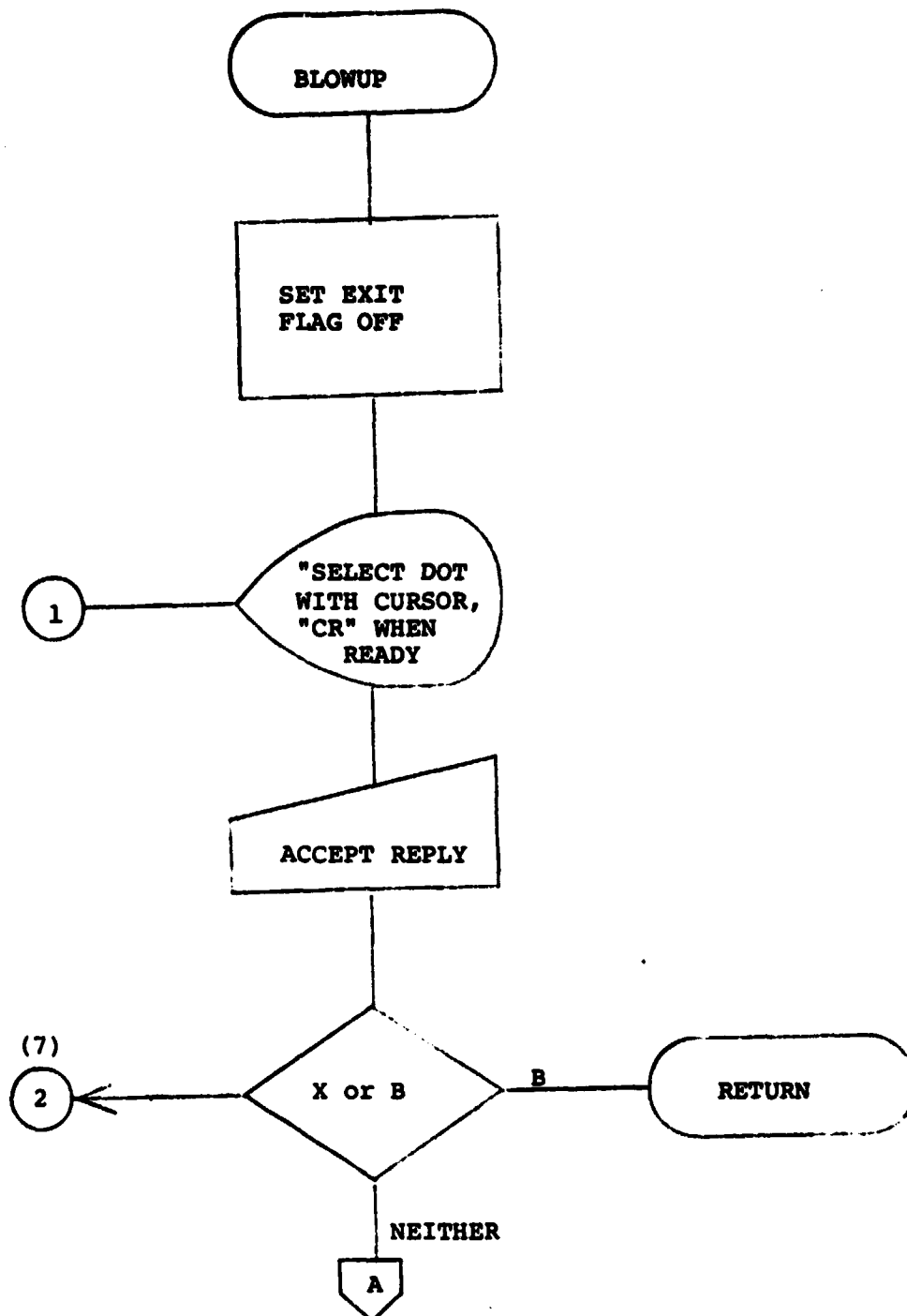
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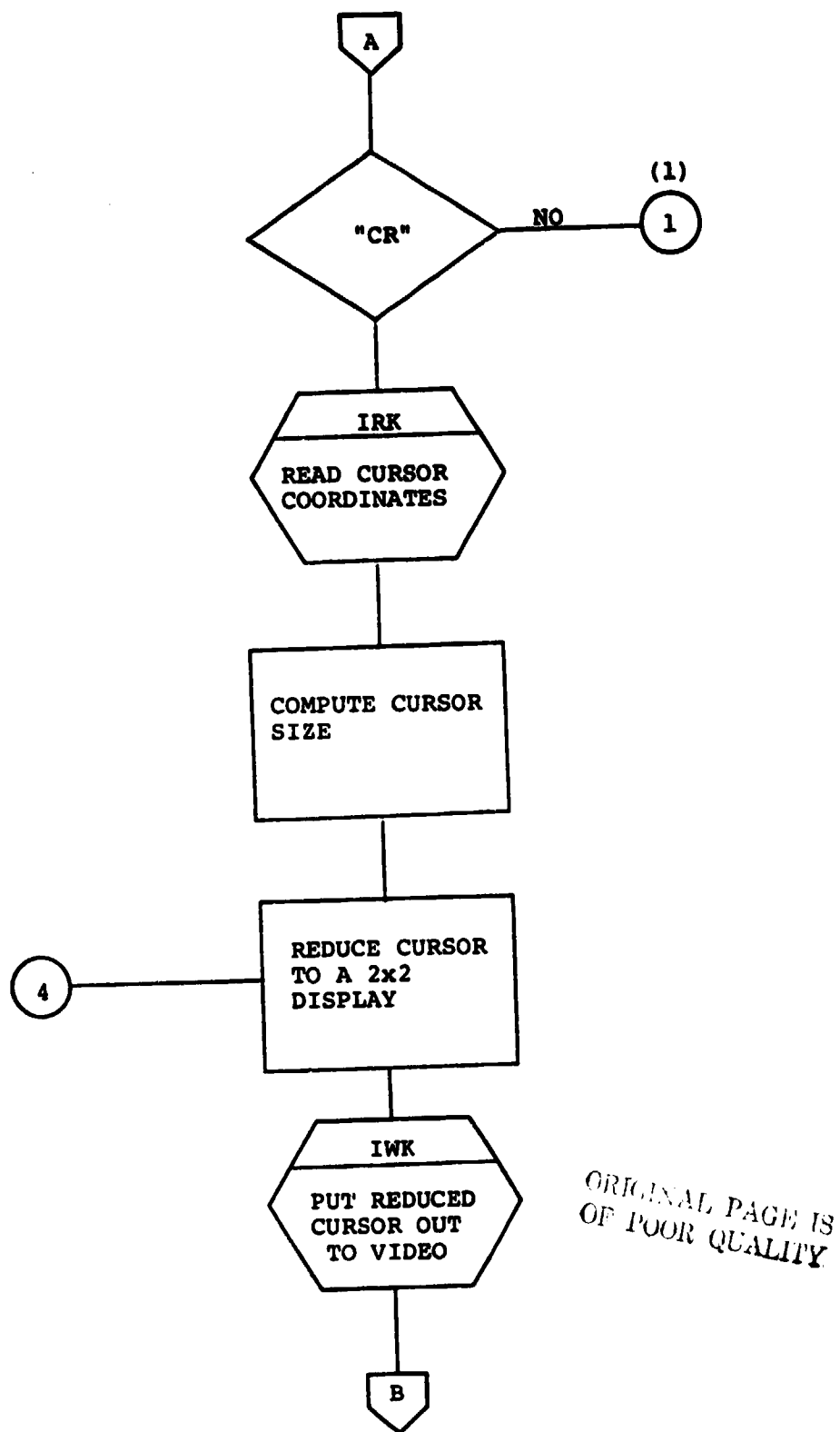
C
C
0090      ILNA = ULYI - 1
0091      XTXX = LXXP - 2
0092      YTOY = LRYO - 6
0093      STXX = ULXP + 2
C
0094      DO 700 ILN=ULYA,YTOY,2
0095      ILNA = ILNA + 1
C
0096      D2 700 CHL=1,5
0097      ILI = ILM
0098      CALL TRV (CHL,ILNA,TRUF)
0099      CALL WAIT
C
0100      D2 675 K=1,2
0101      CALL TRV (CHL,ILN,TRUF)
0102      CALL WAIT
0103      IL = ULXI
C
0104      D2 650 I=STXX,XTXX,2
0105      TRUF(I) = TRUF(IL)
0106      TRUF(I+1) = TRUF(IL)
0107      IL = IL + 1
C
0108      CALL TRV (CHL,ILN,TRUF)
0109      CALL WAIT
C
0110      ILM = ILM + 1
C
0111      D2 750
C
0112      RETURN
C
C
C
C
0113      9090  EXFL = 1
0114      RETURN
C
C
C
0115      END

```

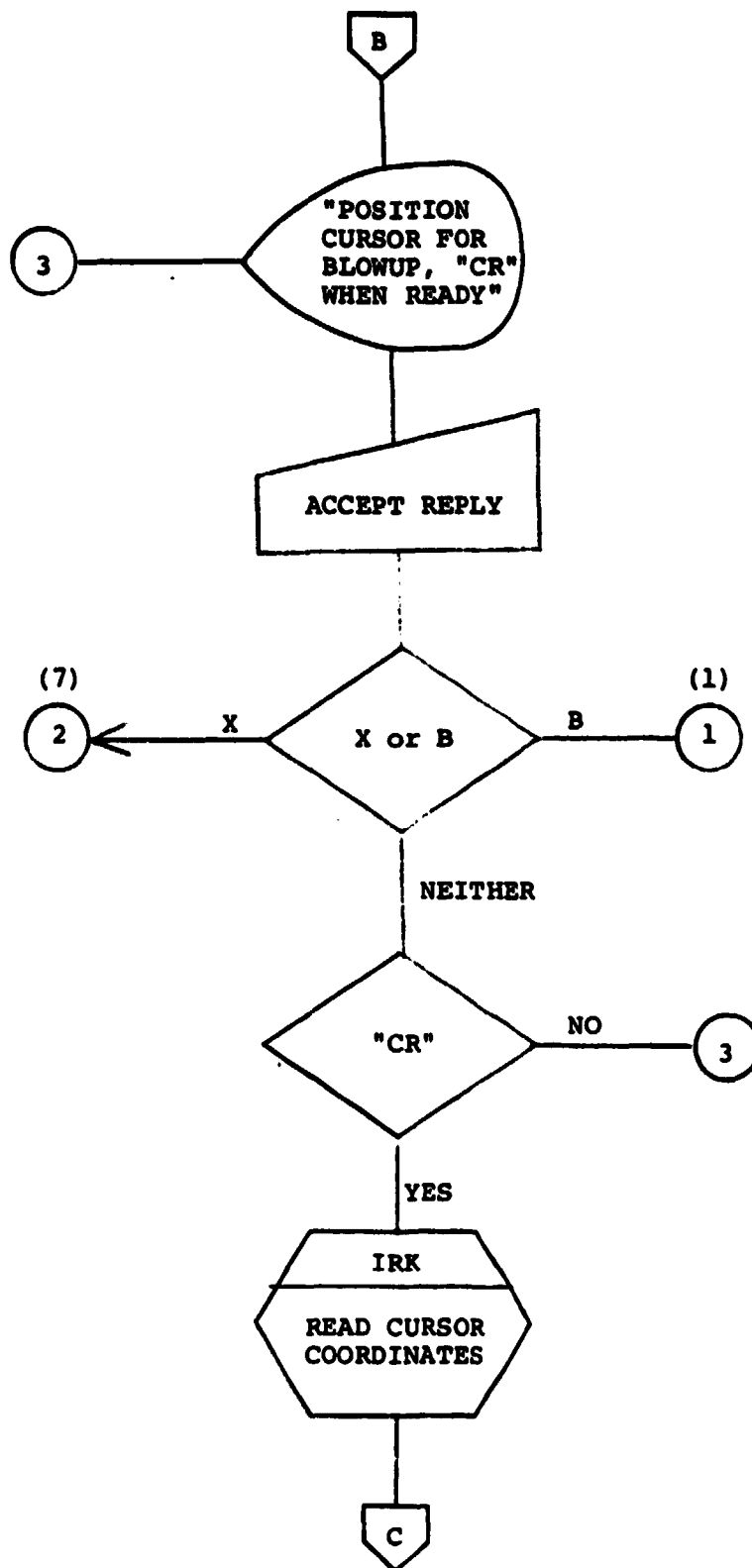
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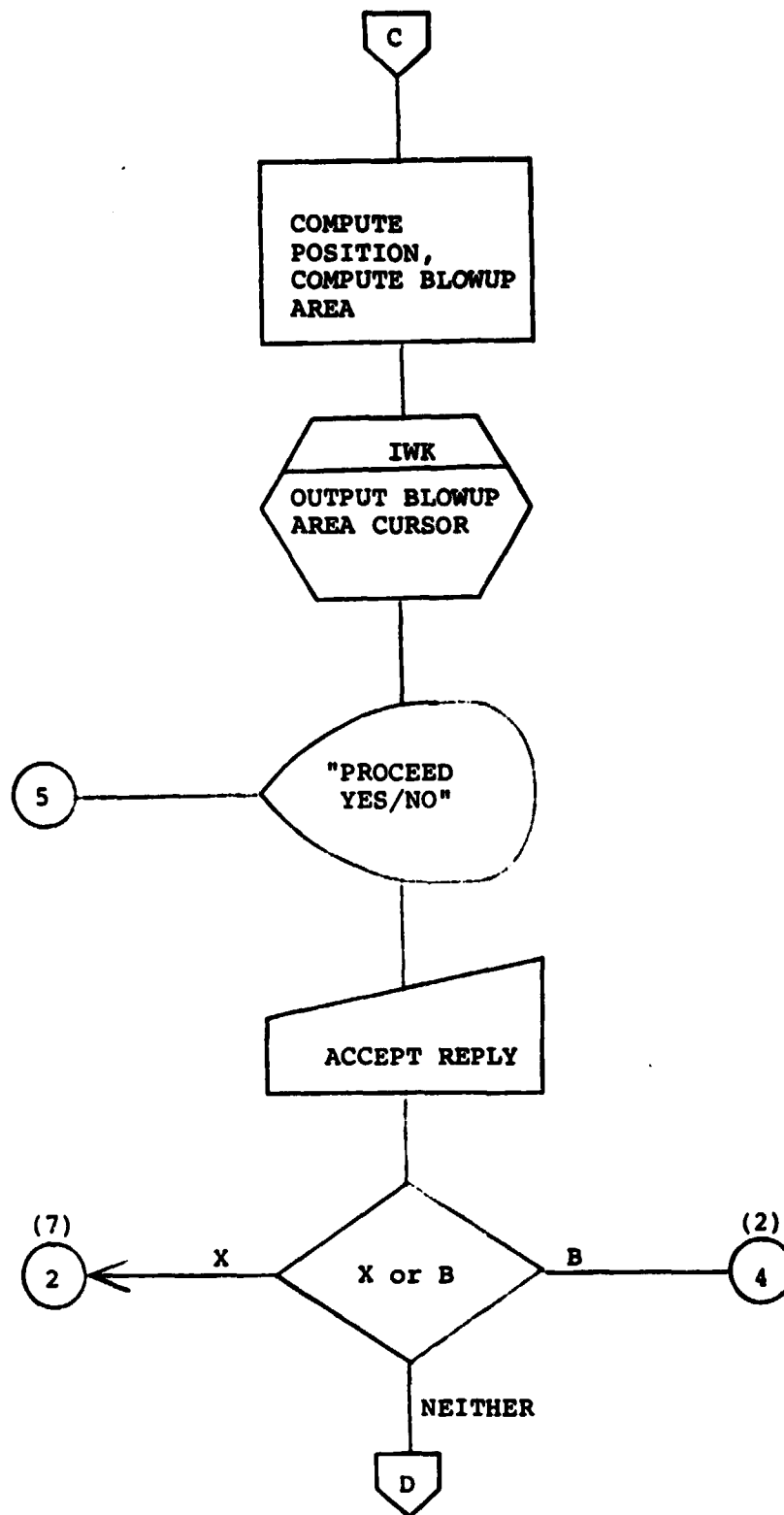
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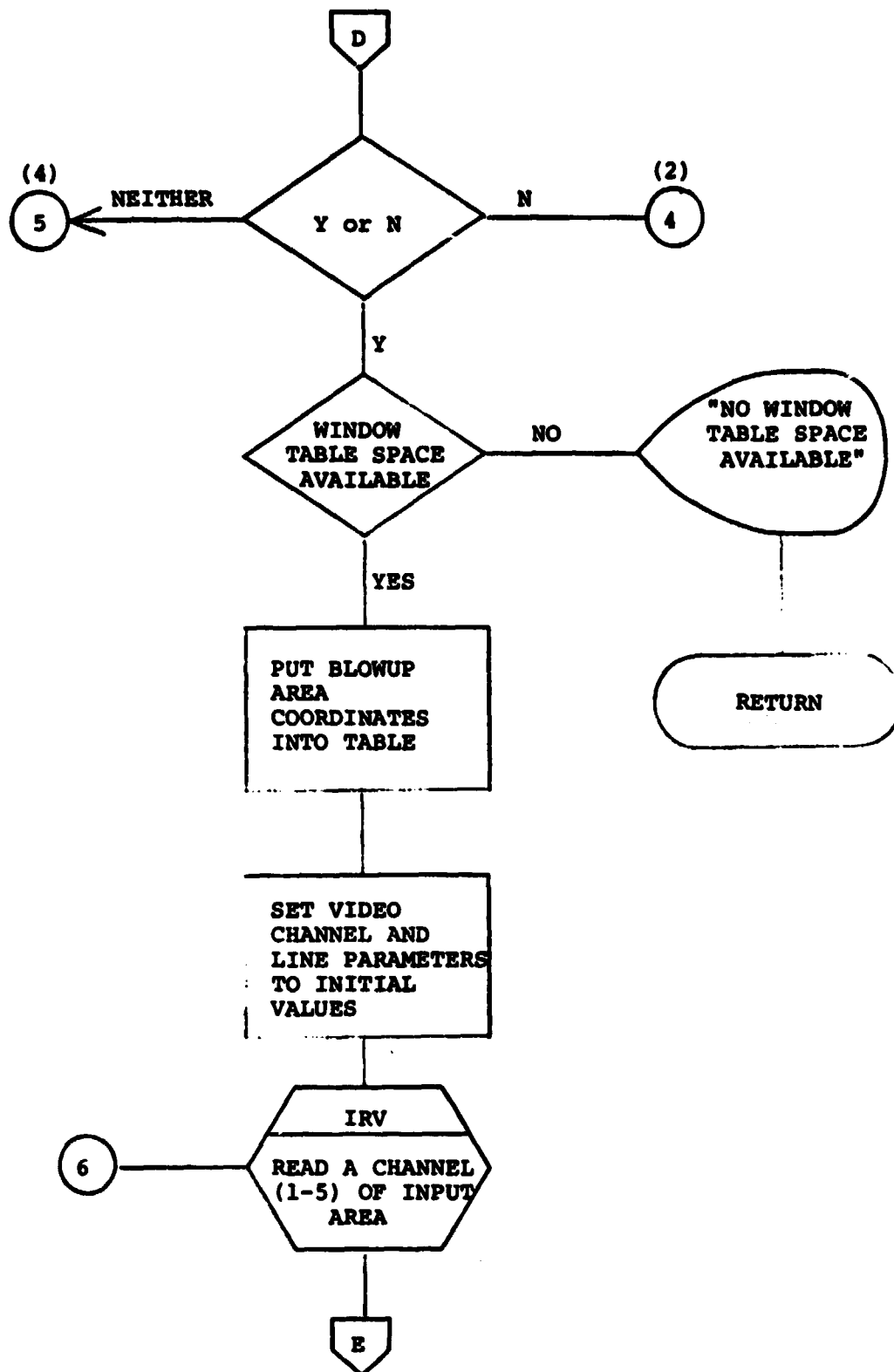


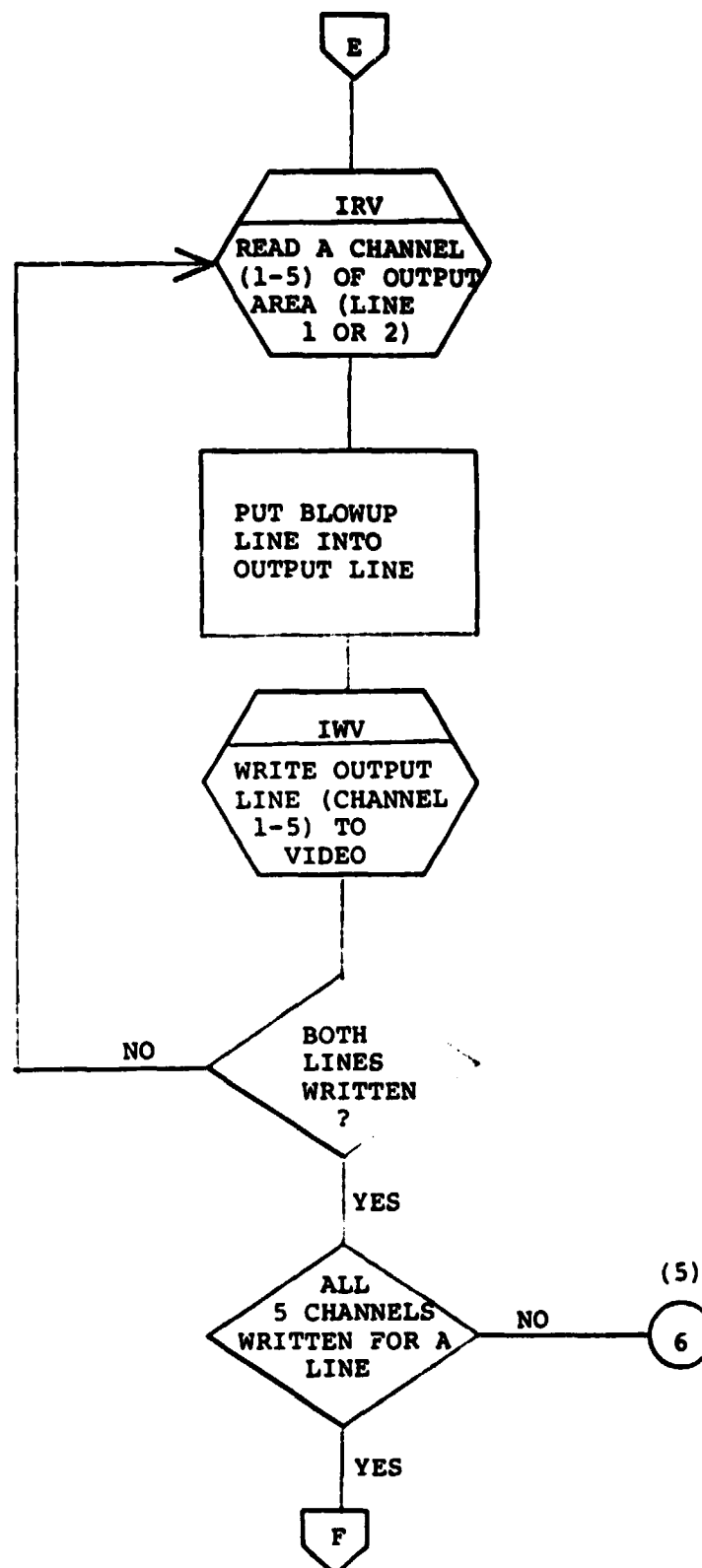


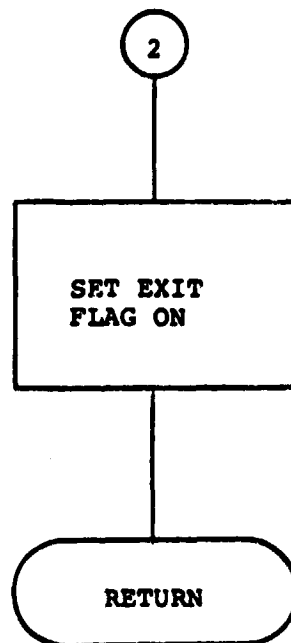
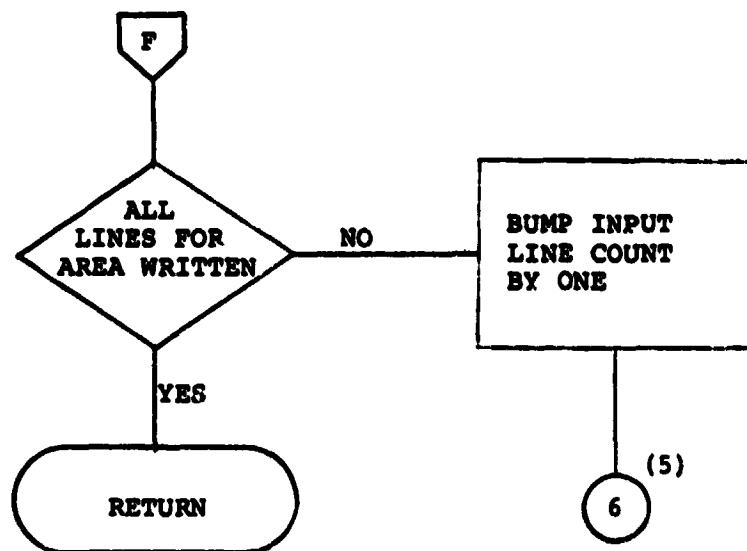
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13.7 SUBROUTINE GTYPE

HEPTRAN IV-PLUS V02-04

12140154

29-AUG-77

PAGE 1

GTYPE,FTN

7713BLOCKS/PP

0001

SUBROUTINE GTYPE (EXFL)

```
C
C
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
C
C
C      GROUP DOT TYPE HANDLING ROUTINE
C
CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC
C
C
0002      IMPLICIT INTEGER (A-Z)
C
0003      BYTE INPUT(74)
C
C
0004      INCLUDE 'SY:0300,310A (SCHEM, INC)
0005 *      INCLUDE 'SY:0300,310A (SPARM, INC)
0006 *      PARAMETER MAXCAT=6, MAXS=6, MAXCHN=4, NP1X=196, NLIN=117, MAXFLD=50
*      1, MAXM=11, NDOTS=209, LSKIP=10, USSKIP=10, MAXACD=6, MAXACC=4,
*      2NDSP=5, NDTW=10
0007 *      EQUIVALENCE (C1, ADATE), (C2, ISUB), (C3, PFLAG), (C4, TX1), (C5, DISKID)
0008 *      INTEGER C1(469), C2(256), C3(71), C4(344), C5(429)
*
*
0009 *      INTEGER ADATE, SURCAT, GROUP, CATCAT, CATTH
0010 *      BYTE CHVEC, NCHAN, ISUB, DTCAT, DTCU
0011 *      COMMON /G1/ ADATE(2, MAXACD), CHVEC(MAXCHN, MAXACC), NCHAN, NDSUR,
*      1SURCAT(MAXSUR), SURP, P(MAXSP), CATCAT(MAXCAT), CATTH(MAXCAT), NDOT,
*      2NDSP, CAT, DTCAT(NDOTS), DTCU(NDOTS)
*
*
0012 *      INTEGER ADATE5, SURAT, ANALST, FLDDAY, DDTAY, PDATE1, TDATE1
0013 *      INTEGER PDATE2, TDATE2, PDATE3, TDATE3, CATNAM, DISKID, RANDM, GRID
0014 *      BYTE DFLC, DACC, SPILGR, SPIL, START, NTYPE1, ALP, ALP0
0015 *      BYTE PCTCT, PCTCT2, VAR, VAR2, LABEL, TYPE
0016 *      COMMON /G2/ ISG, DFLC, DACC, DATES(2, MAXACD), SPILGR(MAXACD),
*      1SPIL(MAXACD), SURAT(MAXACD), TDATE(2), ANALST(5), FLDDAY(2),
*      2DDTAY(2), START, NTYPE1, PDATE1(2), TDATE1(2), PDATE2(2), TDATE2(2),
*      3PDATE3(2), TDATE3(2), CAT, CATNAM(MAXCAT), ALP(MAXCAT), ALP0,
*      4 PCTCT(MAXCAT), PCTCT2, VAR(MAXCAT), VAR2
*
*
0017 *      INTEGER EFLAG1, EFLAG2, EFLAG3, EFLAG4, EFLAG5, UFLAG1, UFLAG2, UFLAG3,
*      1UFLAG4
0018 *      INTEGER PFLAG, DSKINT
0019 *      COMMON /G3/ PFLAG, DSKINT, EFLAG1, EFLAG2, EFLAG3, EFLAG4, EFLAG5, UFLAG1,
*      1UFLAG2, UFLAG3, UFLAG4, UFLAG5, PFLAG(MAXSUR)
*
*
0020 *      INTEGER TX1, TY1, TX2, TY2, ACDISP, G, B, DTWIND, DDTARY, GMIN, GMAX, FUL
0021 *      INTEGER SPIND, CLAWND, CLUWD
0022 *      COMMON /G4/ TX1, TY1, TX2, TY2, IXL, IY1, IX2, IY2, ACDISP(2), I11(4), G(4),
*      1G(4), I1, I12(5), DDT(2), SPIL(5, 2NDSP), I1WIND(4), NUMDOT,
*      2DDTARY(NDOTS), GMIN, GMAX, FUL(2, 7), CLAWND(9), CLUWD(9)
```


QTYPE,FTN

/TR:BLOCKS/HR

0023 • COMMON/COM5/DISKID,RANDOM(NDOTS),GRID(NDOTS),DLABEL(NDOTS),
• TYPE(NDOTS),RECLAC

C

C

C

C

C

0024 EXPL = 0

C

C

0025 10 CALL HSEKPG (6)

0026 WRITE (6,100)

0027 100 FORMAT(1H0,' INPUT THE NUMBER FOR FIRST LABELLED DOT TO BE '//
1 ' SET TO TYPE 1 FROM CURRENT DOT SELECTION, '//, 'S(THE REMAINING'
2 ' DOT(S) ARE AUTOMATICALLY SET TO TYPE 2) >')

C

0028 CALL OUTPUT (7)

C

0029 READ (6,200) INPUT

0030 200 FORMAT (74A1)

0031 CALL FRONT (INPUT,74)

0032 IF (INPUT(1) .EQ. 'B') RETURN

0033 IF (INPUT(1) .EQ. 'X') GO TO 9999

C

0034 IP = 0

0035 CALL INTFF (IP,INPUT,74,NUM)

0036 IF (NUM .LT. 1 .OR. NUM .GT. 209) GO TO 10

C

0037 NUMD = NUMDOT

0038 IF (NUM .GT. NUMDOT) GO TO 300

0039 GO TO 500

0040 300 CALL HSEKPG (2)

0041 WRITE (6,400) NUM

0042 400 FORMAT (1H0,13,' IS MORE THAN THE NUMBER OF SELECTED '
1 'DOTS!')

0043 GO TO 10

C

C

C

0044 500 I = 1

0045 510 DUI = DUTARY(I)

0046 IF (DLABEL(DUI) .GT. 0) GO TO 550

0047 520 NUMD = NUMD + 1

0048 IF (NUMD .EQ. 0) GO TO 9000

0049 I = I + 1

0050 GO TO 510

0051 550 TYPE(DUI) = 1

0052 NTYPE1 = NTYPE1 + 1

0053 NUM = NUM + 1

0054 IF (NUM .GT. 0) GO TO 520

C

0055 600 NUMD = NUMD - 1

0056 IF (NUMD .EQ. 0) GO TO 9000

0057 I = I + 1

0058 620 DUI = DUTARY(I)

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 GTYPE,FTN /TRIMBLOCKS/WR
 0059 IF (DLABEL(DUI) .LT. 1) GO TO 600
 0060 IF (TYPE(DUI) .EQ. 1) NTYPE1 = NTYPE1 + 1
 0061 TYPE(DUI) = 2
 0062 GO TO 600

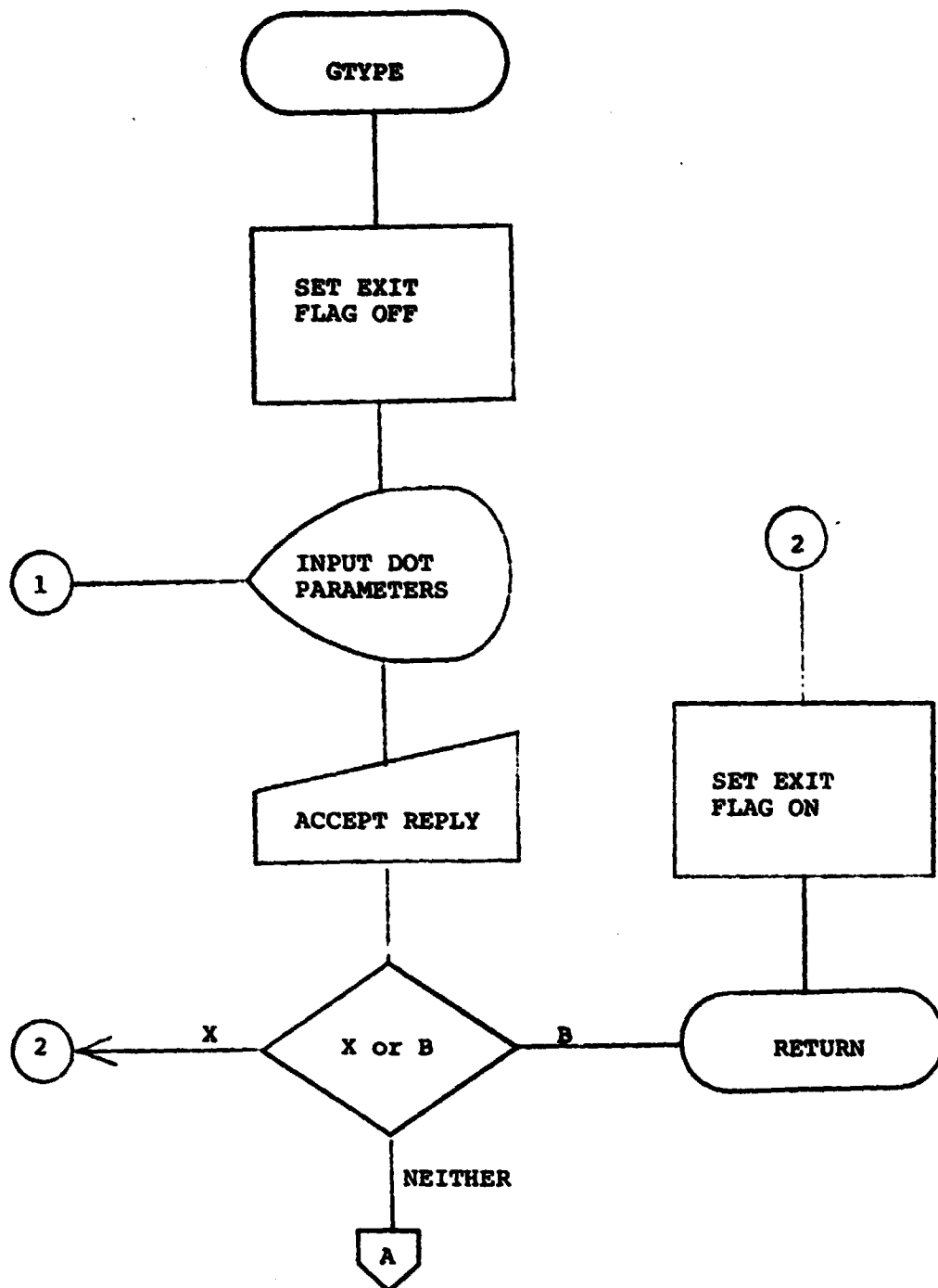
PAGE 3

C
 C
 C
 0063 9000 UFLAG3 = 1
 0064 RETURN

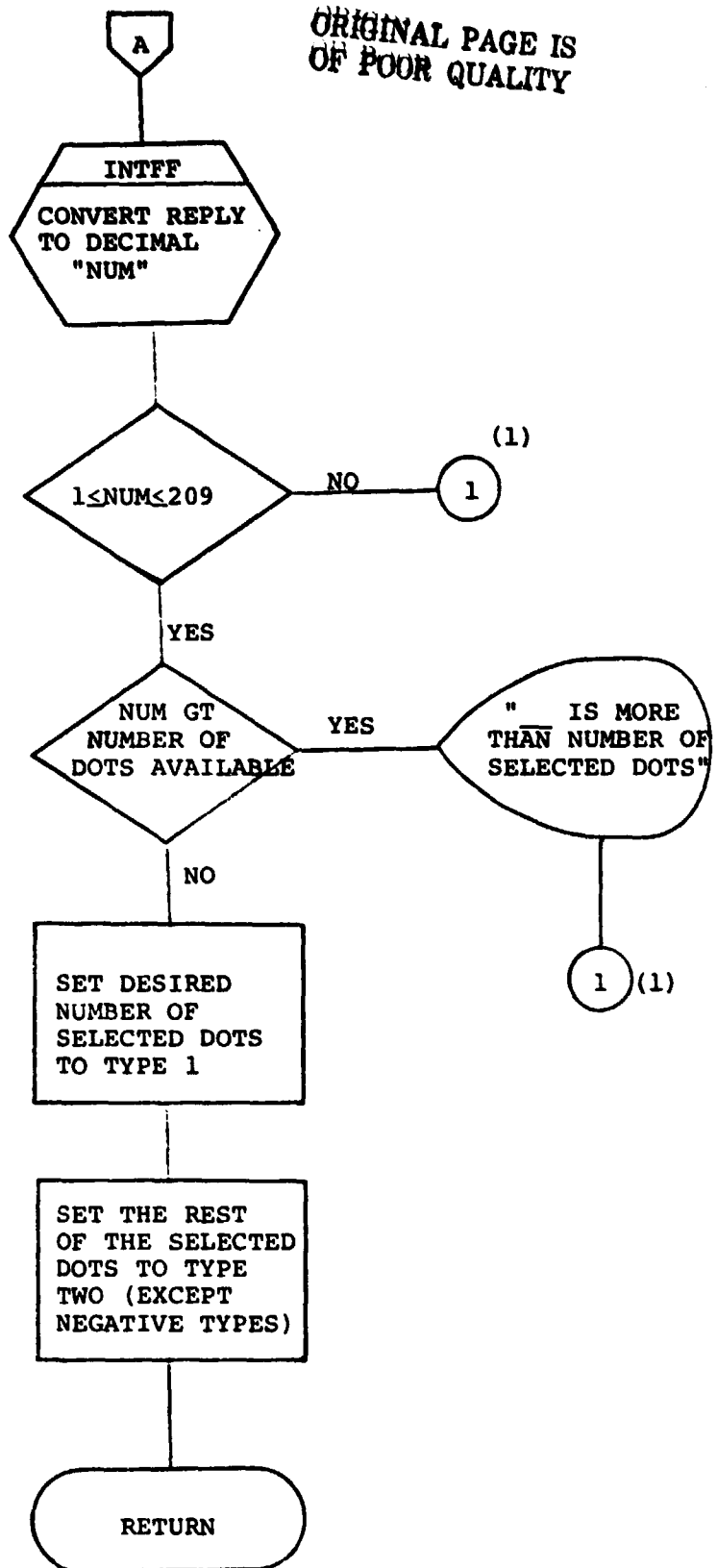
C
 C
 0065 9099 EXFL = 1
 0066 RETURN
 0067 END

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13.7 SUBROUTINE GTYPE



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13.8 SUBROUTINE TRAJPL

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PAGE 1

TRAJPL.FTN

/TR18LOCKS/WR

0001

SUBROUTINE TRAJPL (EXFL,N,GRNDB)

C

C

C

C

C

C

C

C

C

C

C

C

C

C

C

C

0002

IMPLICIT INTEGER (A-Z)

C

C

0003

BYTE INPUT(74),APF,NUMGRN(7),XCOR,YCOR,SCALEF,SCALEI(16)

0004

BYTE SCALE0(4),IRUF(52),COL0P(7),COL0RS(42)

0005

BYTE CORD1(6),CORD2(6),CORDA(42)

C

C

0006

INCLUDE 'SYIC300,31CAMSCRM0N,INC'

0007

INCLUDE 'SYIC300,31CAMSPARAM,INC'

0008

PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=50

1,MAXV=11,NDOTS=209,DLSKIP=10,DSKIP=10,MAXACD=6,MAXACC=4,

2N0SPWD=6,N0DTWD=10

0009

EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,IX1),(C5,DISKID)

0010

INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)

C*

0011

INTEGER ACDATE,SUBCAT,SUBP2P,CATKNT,CATTH

0012

BYTE CHNVEC,N0CHAN,N0SUB,D0TCAT,D0TCLU

0013

COMMON/C0M1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),N0CHAN,N0SUB,

1SUBCAT(MAXSUB),SUBP0P(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),N0D0,

2N0DU,N0TH,D0TCAT(N0D0TS),D0TCLU(N0D0TS)

C*

0014

INTEGER ADATES,SUNAR,ANALST,FLDDAY,D0TDAY,PDATE1,TDATE1

0015

INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RAND0M,GRID

0016

BYTE DELFLG,N0ACO,S0ILGR,SUNEL,NSTART,NTYPE1,ALP,ALP0

0017

BYTE PCTCT,PCTCT0,VAR,VAR0,DLAREL,TYPE

0018

COMMON/C0M2/ISEG,DELFLG,N0ACO,ADATES(2,MAXACD),S0ILGR(MAXACD),

1SUNEL(MAXACD),SUNAR(MAXACD),TDATE(2),ANALST(5),FLDDAY(2),

2D0TDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),

3PDATE3(2),TDATE3(2),N0CAT,CATNAM(MAXCAT),ALP(MAXCAT),ALP0,

4 PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0

C*

0019

INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,

1UFLAG4

0020

INTEGER PFLAG,DSKMNT

0021

COMMON/C0M3/PFLAG,DSKMNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1

1,UFLAG2,UFLAG3,UFLAG4,NEWLAB(MAXSUB)

C*

0022

INTEGER TX1,TY1,TX2,TY2,ACDISP,G,B,DTHIND,D0TARY,GMIN,GMAX,FUL

0023

INTEGER SP-IND,CLAND,CLUND

25-02

65

TRAJPL.FTN

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0024 * COMMON/COM4/TX1, TY1, TX2, TY2, IX1, IY1, IX2, IY2, ACDISP(2), I11(4), G(4),
*      19(4), DT, IND(5, NDOTS), SP, IIND(5, NPSWD), IMWIND(4), NUMDOT,
*      2NDTARY(NDOTS), GMIN, GMAX, FUL(2,7), CLAWND(8), CLUNND(8)
0025 * COMMON/COM5/DISKID, HANDID(NDOTS), GRID(NDOTS), DLABEL(NDOTS),
*      1TYPE(NDOTS), PECLNO

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0026 *      PARAMETER COM=63

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OF POOR QUALITY

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0027 *      DIMENSION XYSAL(4), XYOUT(5), XYIN(5), GRNEB(6)
0028 *      DIMENSION NDATES(2,5), JOBF(24), CHLDAT(24), WDATE(2)

```

```

0029 *      EQUIVALENCE (JLUF, JOUF)

```

```

0030 *      DATA XCHG/1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 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418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 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1845, 1846, 1847, 1848, 1849, 1850, 1851, 1852, 1853, 1854, 1855, 1856, 1857, 1858, 1859, 1860, 1861, 1862, 1863, 1864, 1865, 1866, 1867, 1868, 1869, 1870, 1871, 1872, 1873, 1874, 1875, 1876, 1877, 1878, 1879, 1880, 1881, 1882, 1883, 1884, 1885, 1886, 1887, 1888, 1889, 1890, 1891, 1892, 1893, 1894, 1895, 1896, 1897, 1898, 1899, 1900, 1901, 1902, 1903, 1904, 1905, 1906, 1907, 1908, 1909, 1910, 1911, 1912, 1913, 1914, 1915, 1916, 1917, 1918, 1919, 1920, 1921, 1922, 1923, 1924, 1925, 1926, 1927, 1928, 1929, 1930, 1931, 1932, 1933, 1934, 1935, 1936, 1937, 1938, 1939, 1940, 1941, 1942, 1943, 1944, 1945, 1946, 1947, 1948, 1949, 1950, 1951, 1952, 1953, 1954, 1955, 1956, 1957, 1958, 1959, 1960, 1961, 1962, 1963, 1964, 1965, 1966, 1967, 1968, 1969, 1970, 1971, 1972, 1973, 1974, 1975, 1976, 1977, 1978, 1979, 1980, 1981, 1982, 1983, 1984, 1985, 1986, 1987, 1988, 1989, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 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TRAJPL.FTN      /TRIBLOCKS.WR

0045      CHLDAT(9) = 0
0046      CHLDAT(10) = 2*CDN
0047      CHLDAT(11) = 0
0048      CHLDAT(12) = 0
      C
0049      CHLDAT(13) = 2*CDN
0050      CHLDAT(14) = 2*CDN
0051      CHLDAT(15) = 0
0052      CHLDAT(16) = 0
      C
0053      CHLDAT(17) = 3*CDN
0054      CHLDAT(18) = 0
0055      CHLDAT(19) = 0
0056      CHLDAT(20) = 0
      C
0057      CHLDAT(21) = 4*CDN
0058      CHLDAT(22) = 0
0059      CHLDAT(23) = 0
0060      CHLDAT(24) = 4*CDN
      C
0061      IWLL = 1
      C
0062      4      IF (IWLL .GT. N0SPWD) IWLL = 1
      C
      C
0063      5      GO TO 10 I=IWLL, N0SPWD
0064      10      IF (SPWIND(1,1) .EQ. 0) GO TO 20
0065      CALL WSEKPG (3)
0066      WRITE (6,100)
0067      100     FORMAT (1H0, ' NO WINDOW AVAILABLE')
0068      RETURN
      C
      C
      C
0069      20      XYOUT(1) = 0
0070      XYOUT(2) = (SPWIND(2,1) + SPWIND(4,1) - 2) / 2
0071      XYOUT(3) = (SPWIND(4,1) - SPWIND(2,1) - 2) / 4
0072      XYOUT(4) = (SPWIND(3,1) + SPWIND(5,1) - 2) / 2
0073      XYOUT(5) = (SPWIND(5,1) - SPWIND(3,1) - 2) / 4
      C
0074      IWL = I
0075      IWLL = I + 1
      C
0076      CALL INK (XYOUT)
      C
      C
      C
0077      30      CALL WSEKPG (7)
0078      WRITE (6,200)
0079      200     FORMAT (1H0, ' SELECT WINDOW LOCATION FOR TRAJECTORY PLOT:',
1 /, ' ENTER "CR" TO ACCEPT WINDOW AS DISPLAYED, ',
2 /, ' ENTER (N) TO DISPLAY NEXT DEFAULT WINDOW, ',
3 /, ' OR ENTER (C) TO USE CURSOR TO SELECT ',
4 /, 'S DESIRED LOCATION AND SIZE >')
      C
0080      CALL OUTPUT (7)

```


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```

0081      C      READ (6,300) INPUT
0082      300      FORMAT (74A1)
0083      CALL FRONT (INPUT,74)
0084      IF (INPUT(1) .EQ. 'X') GO TO 9999
0085      IF (INPUT(1) .EQ. 'B') RETURN
0086      IF (INPUT(1) .EQ. 'N') GO TO 4
0087      IF (INPUT(1) .EQ. 'C') GO TO 3000
0088      IF (INPUT(1) .NE. ' ') GO TO 30
0089      C      GO TO 3200

0090      C
0091      40      CALL HSEKPG (5)
0092      400      WRITE (6,400) XCOR, YCOR
0093      400      FORMAT (1H0, ' SELECT THE COORDINATE SYSTEM: ',
0094      1 /, ' CHANNELS 1-4, (G)REENESS, (B)RIGHTNESS',
0095      2 /, ' OR GREEN (N)UMBER, 'A1.', 'A1.' >')
0096      C
0097      C      CALL OUTPUT (7)
0098      READ (6,300) INPUT
0099      CALL FRONT (INPUT,74)
0100      IF (INPUT(1) .EQ. 'X') GO TO 9999
0101      IF (INPUT(1) .EQ. ' ') GO TO 1000
0102      C
0103      C      GO 410 I=1,7
0104      410      IF (INPUT(1) .EQ. NUMGRN(I)) GO TO 500
0105      GO TO 40
0106      500      DO 510 J=1,7
0107      510      IF (INPUT(3) .EQ. NUMGRN(J)) GO TO 600
0108      GO TO 40
0109      C
0110      600      XCH = I
0111      YCH = J
0112      XCOR = INPUT(1)
0113      YCOR = INPUT(3)
0114      C
0115      C      CALL HSEKPG (3)
0116      610      WRITE (6,610) XCOR, YCOR
0117      610      FORMAT (1H0, ' SELECTED CHANNELS = 'A1.', 'A1')
0118      C
0119      C      CALL HSEKPG (5)
0120      1100      WRITE (6,1100) SCALEF
0121      1100      FORMAT (1H0, ' ENTER SCALING: ',
0122      1 /, ' (F)IXED, (G)LOBAL, (A)NALYST INPUT, 'A1.' >')
0123      C
0124      C      CALL OUTPUT (7)
0125      READ (6,300) INPUT
0126      1110      IF (INPUT(1) .EQ. 'X') GO TO 9999
0127      IF (INPUT(1) .EQ. 'B') GO TO 40
0128      IF (INPUT(1) .EQ. 'G') GO TO 1200

```


0119 IF (INPUT(1) .EQ. 'F') GO TO 1300
0120 IF (INPUT(1) .EQ. 'A') GO TO 1400
0121 IF (INPUT(1) .NE. ' ') GO TO 1000
0122 INPUT(1) = SCALEF
0123 GO TO 1110

C
C

0124 1200 XYSCAL(1) = GMAX
0125 XYSCAL(3) = GMAX
0126 XYSCAL(2) = GMIN
0127 XYSCAL(4) = GMIN
0128 GO TO 1435

C
C
C

0129 1300 XYSCAL(1) = FUL(2,XCH)
0130 XYSCAL(3) = FUL(2,YCH)
0131 XYSCAL(2) = FUL(1,XCH)
0132 XYSCAL(4) = FUL(1,YCH)
0133 GO TO 1435

C
C
C

0134 1400 CALL HSEKPG (-1)
0135 CALL HSEKPG (3)
0136 WRITE (6,1410)
0137 1410 FORMAT (1H0,' INPUT ANALYST SCALING FACTORS')
0138 II = 0

C

0139 DO 1430 IJ=1,4
0140 DO 1417 IK=1,4
0141 1417 SCALE(IK) = SCALI(II*IK)
0142 1415 CALL HSEKPG (2)
0143 WRITE (6,1420) SCALE0
0144 1420 FORMAT ('5',4A1,' = >')
0145 CALL OUTPUT (7)
0146 READ (6,300) INPUT
0147 CALL FRONT (INPUT,74)
0148 IF (INPUT(1) .EQ. 'X') GO TO 9999
0149 IF (INPUT(1) .EQ. 'H') GO TO 40
0150 IP = 0
0151 CALL INTFF (IP,INPUT,74,XYSCAL(IJ))
0152 IF (XYSCAL(IJ) .LT. -5 .OR. XYSCAL(IJ) .GT. 256) GO TO 1415
0153 II = II + 4
0154 1430 CONTINUE

C
C

0155 1435 CALL HSEKPG (-1)
0156 CALL HSEKPG (3)
0157 WRITE (6,1440)
0158 1440 FORMAT (1H0,' SFILECTED SCALE I')

C
C

0159 DO 1470 I=1,4
0160 DO 1450 J=1,4
0161 1450 SCALE(IJ) = SCALI((I-1)*4+J)

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```

TRAJPL,ETN /TRIPLOCKS/WR
0162 CALL WSEKPG (2)
0163 WRITE (6,1460) SCALER,XYSICAL(1)
0164 1460 FORMAT ('X,4A1,' = ',13)
0165 1470 CONTINUE

C
C
0166 CALL PHCED

C
C
C
0167 DO 6999 I=1,NPACH
0168   BDATES(1,I) = ADATES(1,I)
0169   BDATES(2,I) = ADATES(2,I)
6999

C
C
0170 READ (710) INUF

C
C
0171 OUTC = 0
0172 B = 0
0173 6998 OUTC = OUTC + 1
0174   B = B + 1

C
C
0175 7000 J = 1
0176   B2 7010 I=1,NPACH
0177   IF (BDATES(1,I) - BATES(1,J)) 7010,7020,7030
0178   7020 IF (BDATES(2,I) .LE. BATES(2,J)) GO TO 7010
0179   7030 J=I
0180   CONTINUE
0181   BATES(1) = BDATES(1,J)
0182   BATES(2) = BDATES(2,J)
0183   BATES(1,J) = 0
0184   BATES(2,J) = 0

C
C
C
C
0185 IF (YCH .GT. 4) GO TO 7140
0186   K = (YCH + 3) + P*(J - 1)
0187   XDATA = IYIT(K,IBUF)
0188   B2 T 7100
0189   7040 IF (YCH .EQ. 5) GO TO 7150
0190   IF (YCH .EQ. 6) GO TO 7160
0191   XDATA = CRNDR(J)
0192   B2 T 7100
0193   7050 XDATA = JBUF((J-1)*4+5)
0194   B2 T 7100
0195   7060 XDATA = JBUF((J-1)*4+6)

C
0196 7100 IF (YCH .GT. 4) GO TO 7140
0197   K = (YCH + 3) + P*(J-1)
0198   YDATA = IYIT(K,IBUF)
0199   B2 T 7200
0200 7140 IF (YCH .EQ. 5) GO TO 7150
0201   IF (YCH .EQ. 6) GO TO 7160

```


TRAJPL.FTN /TR:BL SCKS/HR

0202 YDATA = GRNDB(J)
 0203 GO TO 7200
 0204 7150 YDATA = JBUF((J-1)*4+5)
 0205 GO TO 7200
 0206 7160 YDATA = JBUF((J-1)*4+6)

C
 C

0207 7200 XMAX = XYSCAL(1)
 0208 XMIN = XYSCAL(2)
 0209 YMAX = XYSCAL(3)
 0210 YMIN = XYSCAL(4)
 0211 XUL = SPWIND(2,IWL)
 0212 YUL = SPWIND(3,IWL)
 0213 XLR = SPWIND(4,IWL)
 0214 YLR = SPWIND(5,IWL)

C
 C
 C

0215 XFAC = ((XLR-XUL)*100)/(YMAX-XMIN)
 0216 YFAC = ((YLR-YUL)*100)/(YMAX-YMIN)

C
 C

0217 8200 IF ((XMAX-XDATA) .LT. 0) GO TO 8300
 0218 IF ((XMAX-XDATA) .EQ. 0) GO TO 8300
 0219 IF ((XDATA-XMIN) .LT. 0) GO TO 8400
 0220 IF ((XDATA-XMIN) .EQ. 0) GO TO 8400
 0221 XCDATA = ((XDATA-XMIN)*XFAC)/100
 0222 8220 X1 = XCDATA + XUL
 0223 GO TO 8500
 0224 8300 X1 = XLR - 2
 0225 GO TO 8500
 0226 8400 X1 = XUL + 1

C

0227 8500 IF ((YMAX-YDATA) .LT. 0) GO TO 8600
 0228 IF ((YMAX-YDATA) .EQ. 0) GO TO 8600
 0229 IF ((YDATA-YMIN) .LT. 0) GO TO 8700
 0230 IF ((YDATA-YMIN) .EQ. 0) GO TO 8700
 0231 YCDATA = ((YDATA-YMIN)*YFAC)/100
 0232 8520 Y1 = YLR - YCDATA
 0233 GO TO 9000
 0234 8600 Y1 = YUL + 2
 0235 GO TO 9000
 0236 8700 Y1 = YLR - 1

C
 C
 C

0237 9000 X1 = X1 - 1
 0238 X2 = X1 + 3
 0239 Y1 = Y1 - 2
 0240 Y2 = Y1 + 3

C
 C

0241 DO 9100 C=1,4
 0242 ABF = CHLDAT((RUTC+4)*4+C)
 0243 IND = 1
 0244 CALL VDALTR (X1,Y1,X2,Y2,C,ABF,IND,FLG)

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0245 9100 CONTINUE

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0246 C IF (OUTC .NE. 1) GO TO 9300
C

0247 C CORD1(1) = CORDA((YCH-1)*6+1)
0248 CORD1(2) = CORDA((YCH-1)*6+2)
0249 CORD1(3) = CORDA((YCH-1)*6+3)
0250 CORD1(4) = CORDA((YCH-1)*6+4)
0251 CORD1(5) = CORDA((YCH-1)*6+5)
0252 CORD1(6) = CORDA((YCH-1)*6+6)

0253 C CORD2(1) = CORDA((YCH-1)*6+1)
0254 CORD2(2) = CORDA((YCH-1)*6+2)
0255 CORD2(3) = CORDA((YCH-1)*6+3)
0256 CORD2(4) = CORDA((YCH-1)*6+4)
0257 CORD2(5) = CORDA((YCH-1)*6+5)
0258 CORD2(6) = CORDA((YCH-1)*6+6)

0259 C CALL HSEKPG (-1)
0260 CALL HSEKPG (5)
0261 WRITE (6,9200) N,CORD1,CORD2
0262 9200 FORMAT (1H0,' TRAJECTORY PLOT REPORT FOR DOT NUMBER ',I3,
1 /,' HORIZONTAL VERTICAL ',
2 /,' ACQUISITION RATE ',(A1,5X,6A1,' C/LR',
3 /,' ----- ')

0263 C 9300 CALL HSEKPG (1)
0264 C/LR(1) = C/LRS((D-1)*7+1)
0265 C/LR(2) = C/LRS((D-1)*7+2)
0266 C/LR(3) = C/LRS((D-1)*7+3)
0267 C/LR(4) = C/LRS((D-1)*7+4)
0268 C/LR(5) = C/LRS((D-1)*7+5)
0269 C/LR(6) = C/LRS((D-1)*7+6)
0270 C/LR(7) = C/LRS((D-1)*7+7)
0271 WRITE (6,9400) HDATE(1),HDATE(2),XDATA,YDATA,C/LR
0272 9400 FORMAT (4X,12,'-',I3,13X,I3,PA,13,4X,7A1)

0273 C IF (OUTC .LT. 9300) GO TO 9490

0274 C RETURN

0275 C 9500 CALL HSEKPG (5)
0276 WRITE(6,3100)
0277 3100 FORMAT (1H0,' (SELECT WINDOW BY CURSOR)',
1 /,' PLACE CURSOR AND ENTER "CR" WHEN READY >')
C
0278 CALL PUTOUT (7)

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TRAJPL.FTN

/TRBLOCKS/HR

```
0279      READ (6,300) INPUT
0280      CALL FRONT (INPUT,74)
0281      IF (INPUT(1) .EQ. 'X') GO TO 9999
0282      IF (INPUT(1) .EQ. 'B') GO TO 30
0283      IF (INPUT(1) .NE. ' ') GO TO 3000
```

C
C

```
0284      CALL IRK (XYIN)
0285      SPWIND(2,1) = XYIN(2) * 2*(XYIN(3))
0286      SPWIND(3,1) = XYIN(4) * 2*(XYIN(5))
0287      SPWIND(4,1) = XYIN(2) * 2*(XYIN(3)) * 2
0288      SPWIND(5,1) = XYIN(4) * 2*(XYIN(5)) * 2
```

C
C

```
0289      3200 SPWIND(1,1) = 2
0290      X1 = SPWIND(2,1)
0291      Y1 = SPWIND(3,1)
0292      X2 = SPWIND(2,1) * 1
0293      Y2 = SPWIND(5,1)
```

C

```
0294      DO 3300 CH=1,4
0295      ABF = 255
0296      IND = 1
0297      CALL VDALT (X1,Y1,X2,Y2,CH,ABF,IND,FLAG)
0298      3300 CONTINUE
```

C
C

```
0299      X2 = SPWIND(4,1)
0300      Y1 = SPWIND(5,1) * 1
```

C

```
0301      DO 3400 CH=1,4
0302      ABF = 255
0303      CALL VDALT (X1,Y1,X2,Y2,CH,ABF,IND,FLAG)
0304      3400 CONTINUE
```

C

```
0305      GO TO 40
```

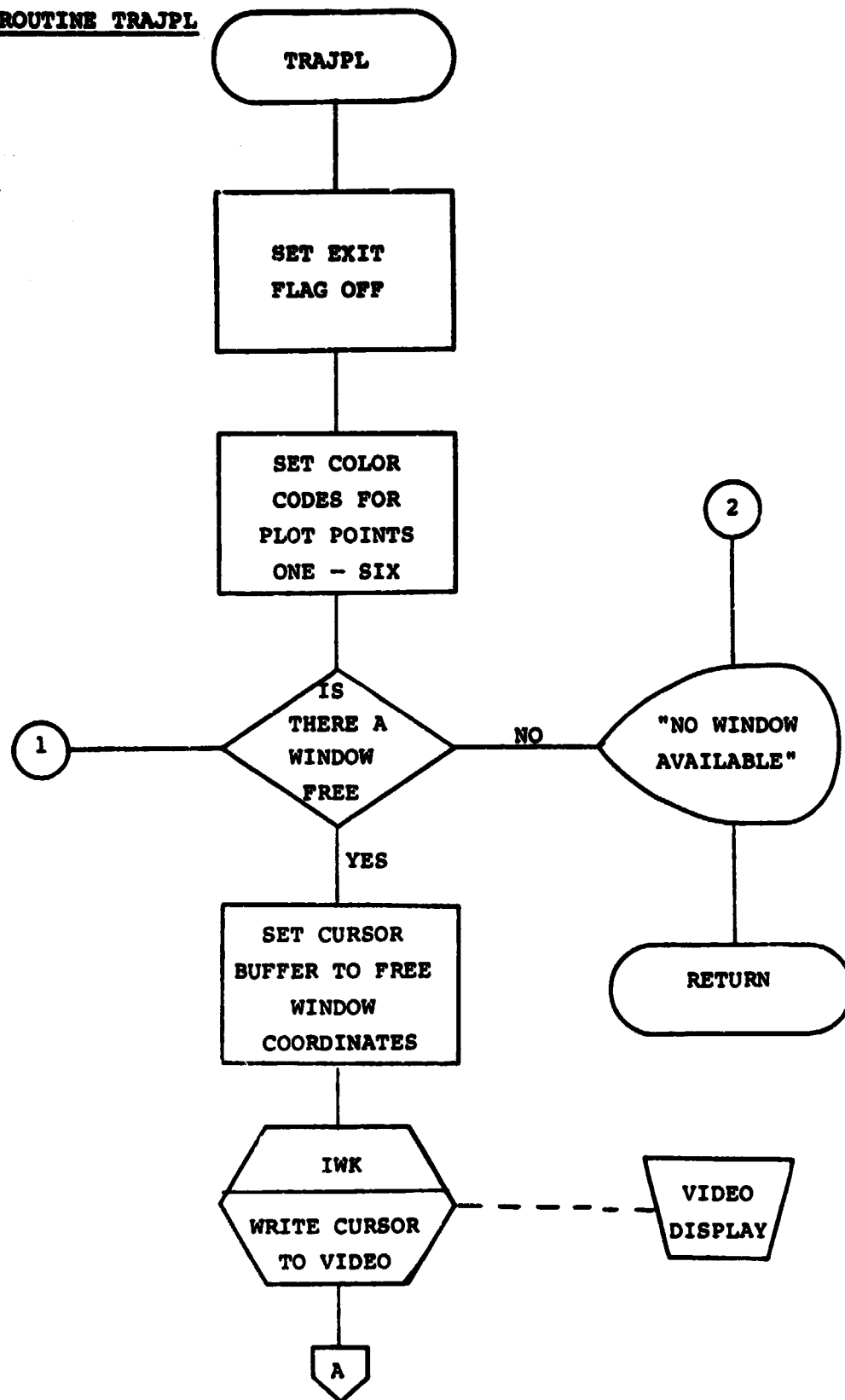
C
C
C
C

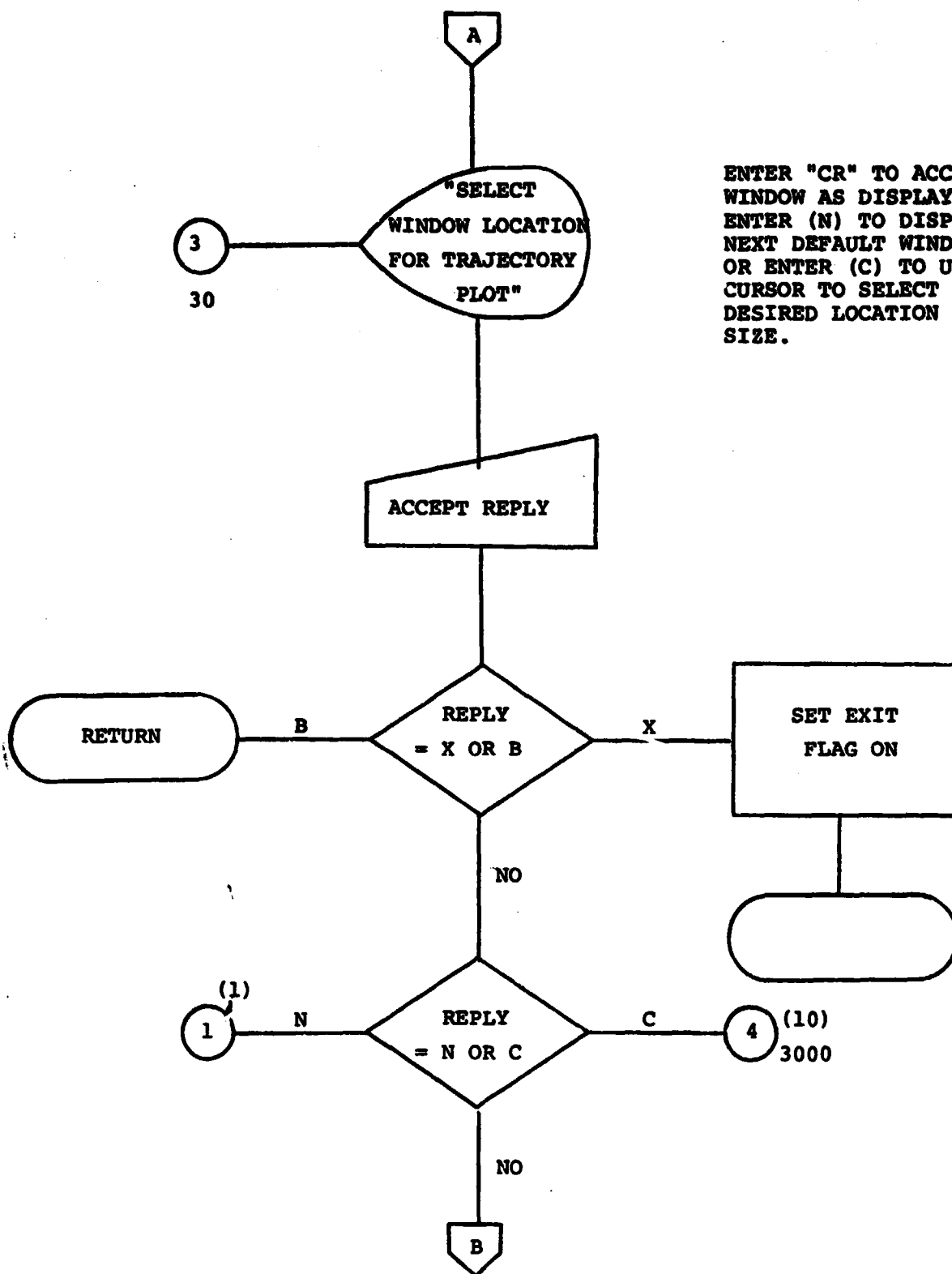
```
0306      9999 EXFL = 1
0307      RETURN
```

C
C
C

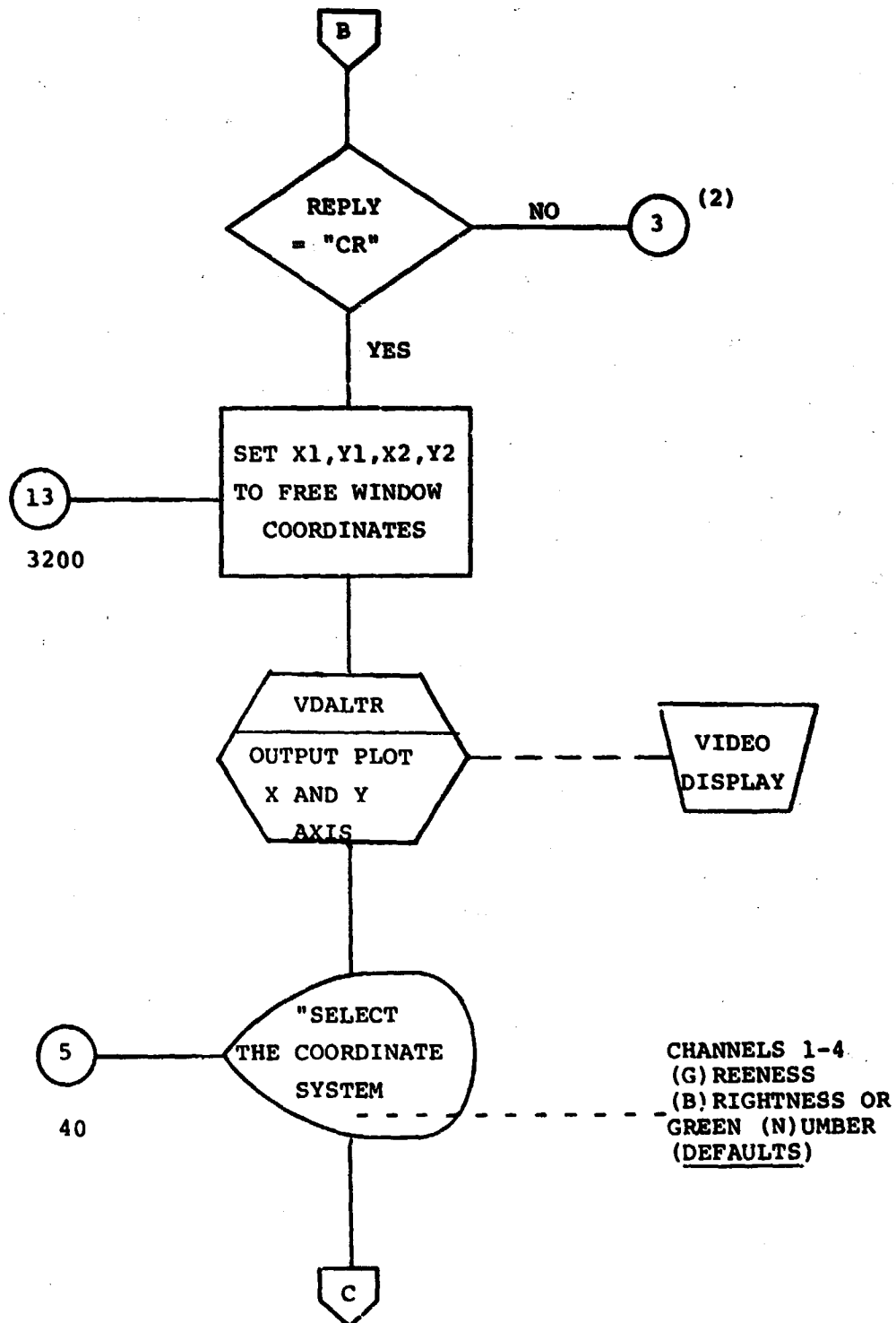
```
0308      END
```

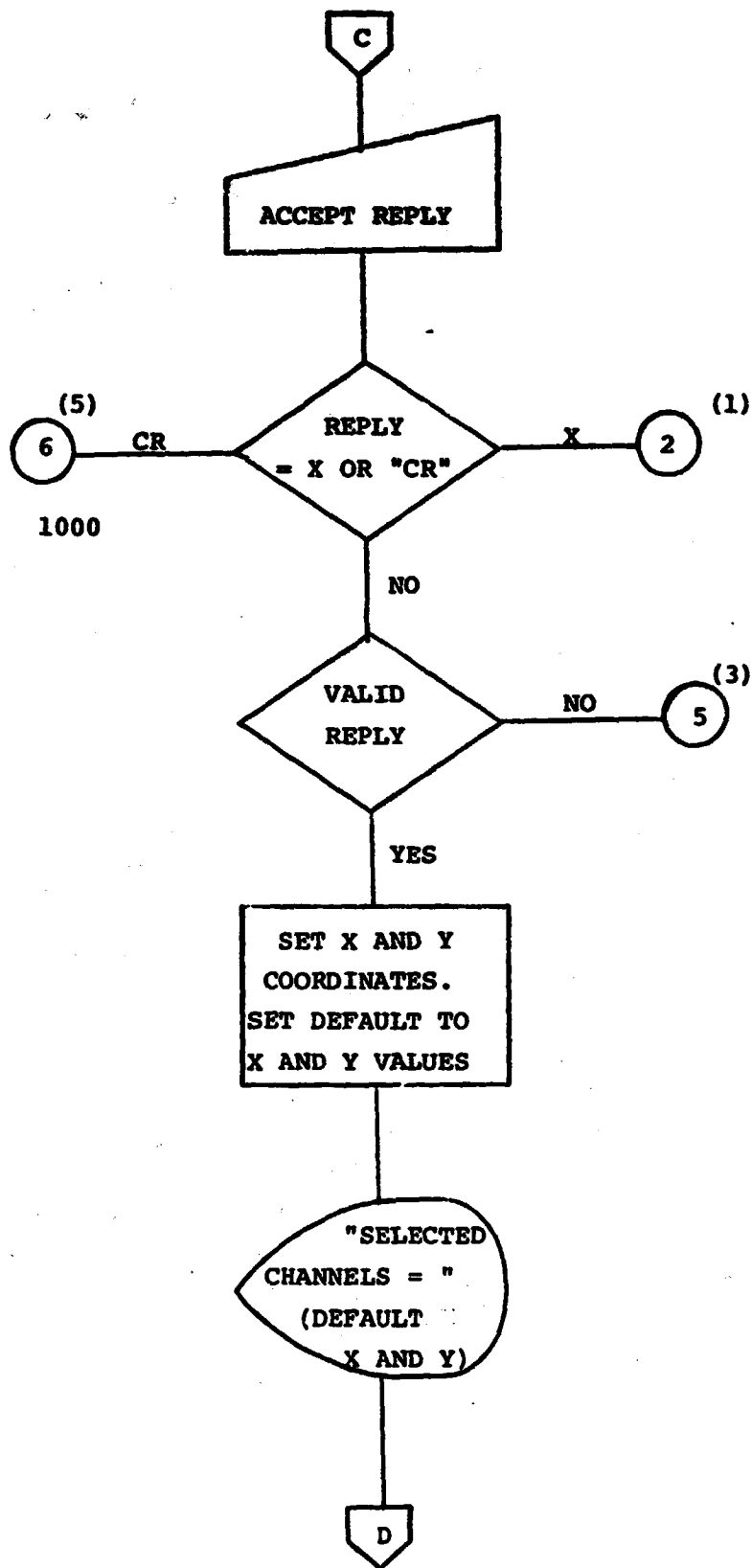

13.8 SUBROUTINE TRAJPL

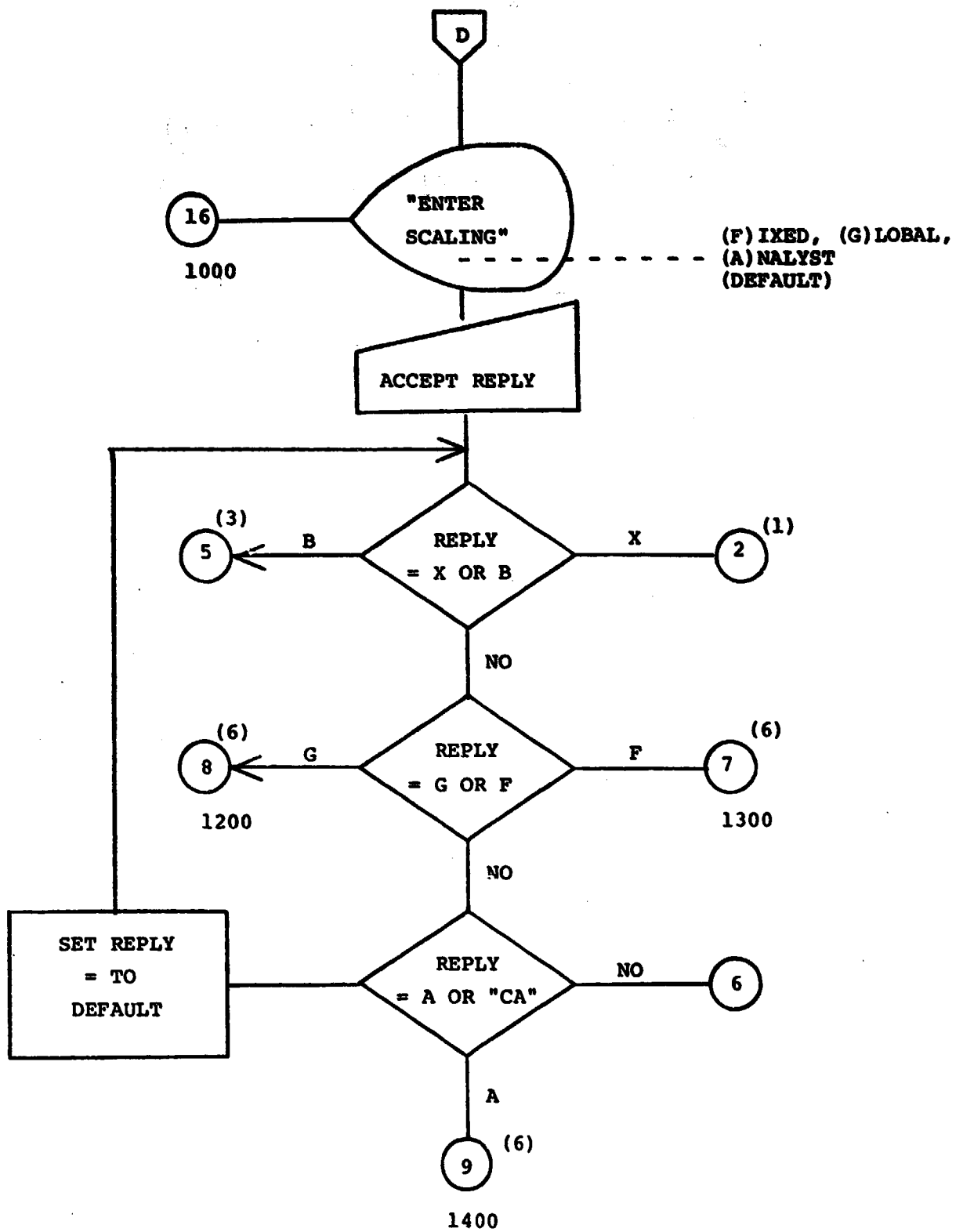


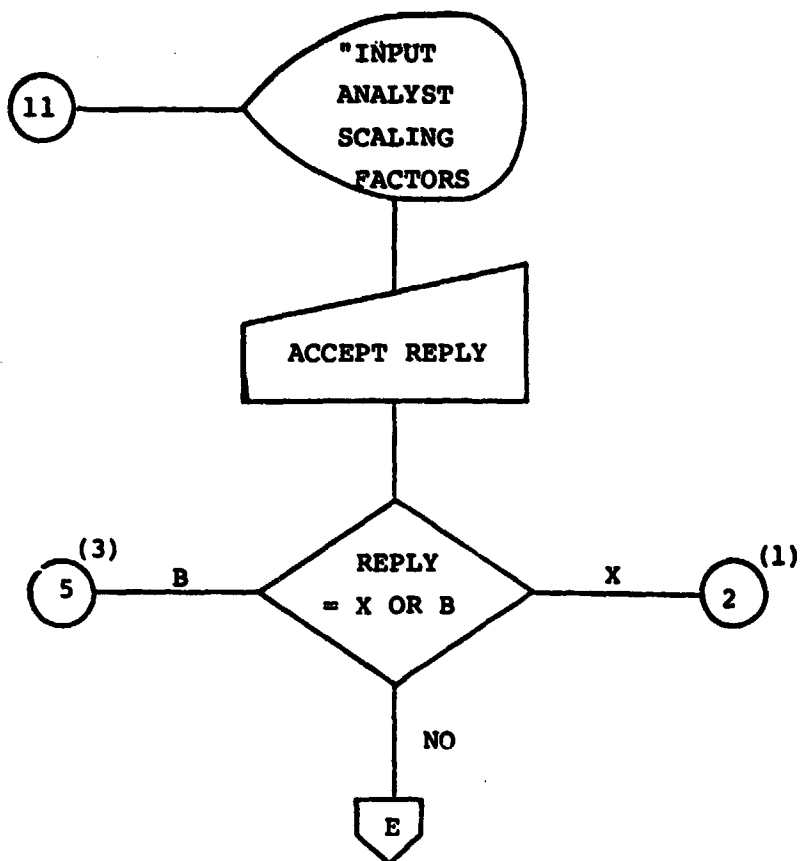
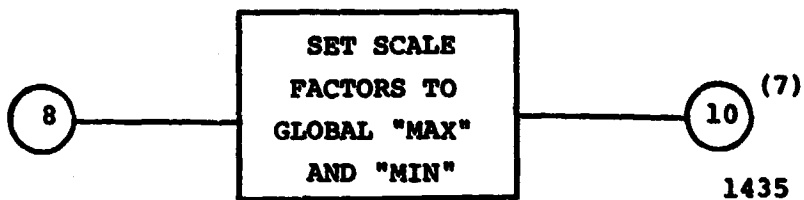
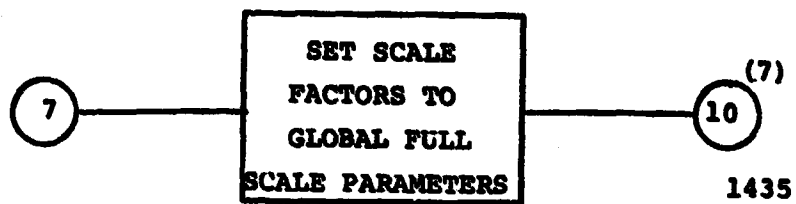


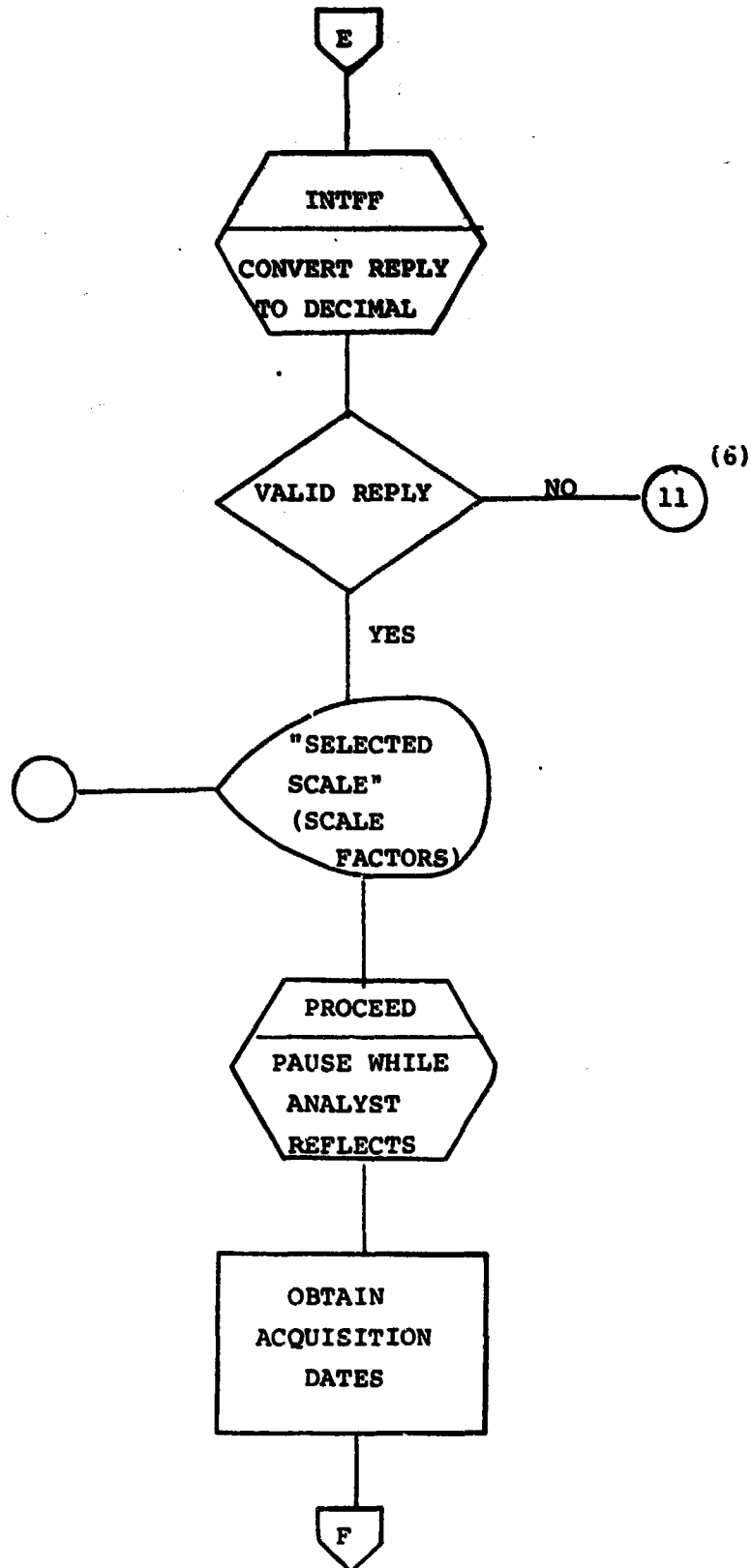
ENTER "CR" TO ACCEPT WINDOW AS DISPLAYED. ENTER (N) TO DISPLAY NEXT DEFAULT WINDOW. OR ENTER (C) TO USE CURSOR TO SELECT DESIRED LOCATION AND SIZE.

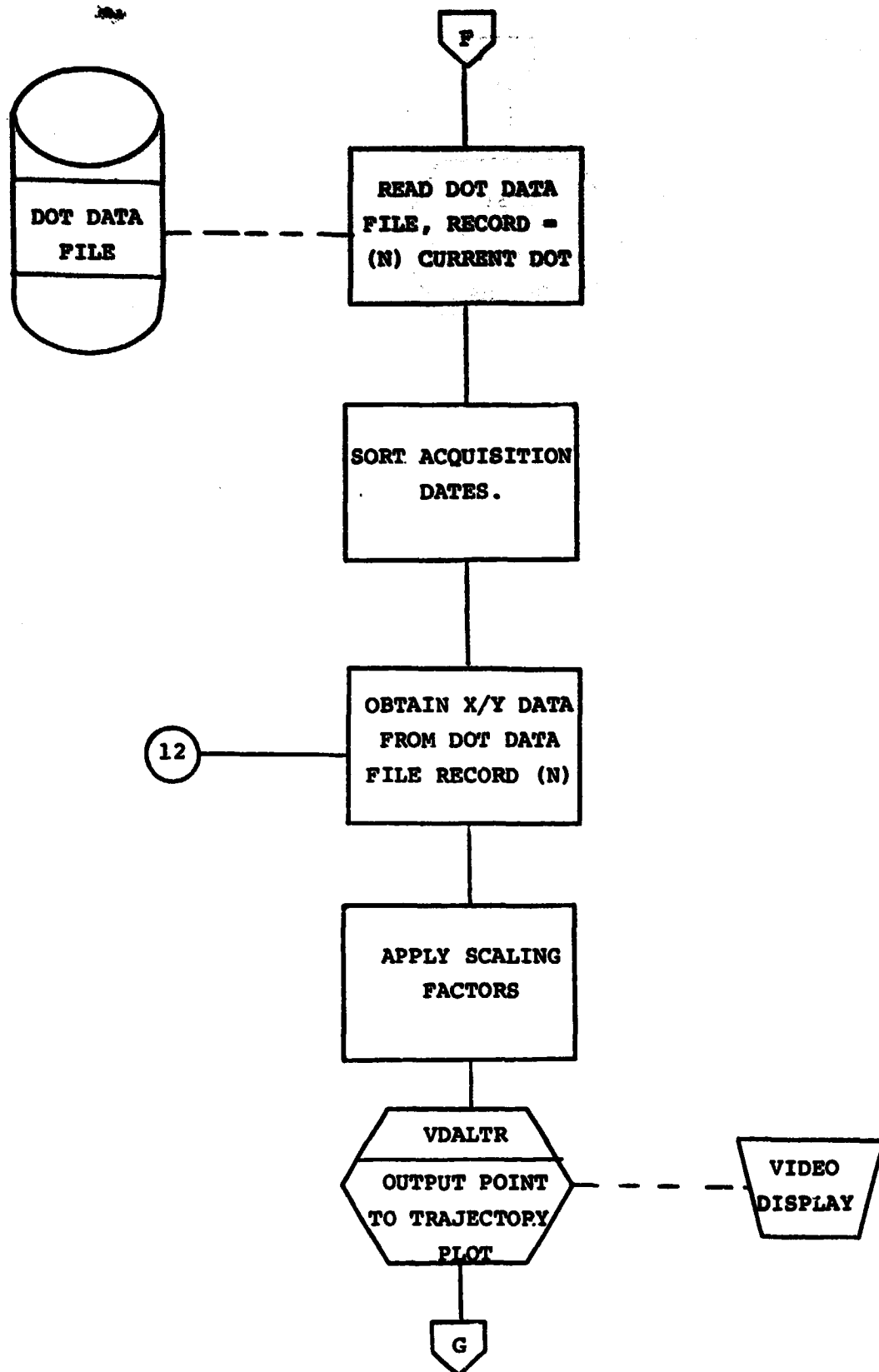


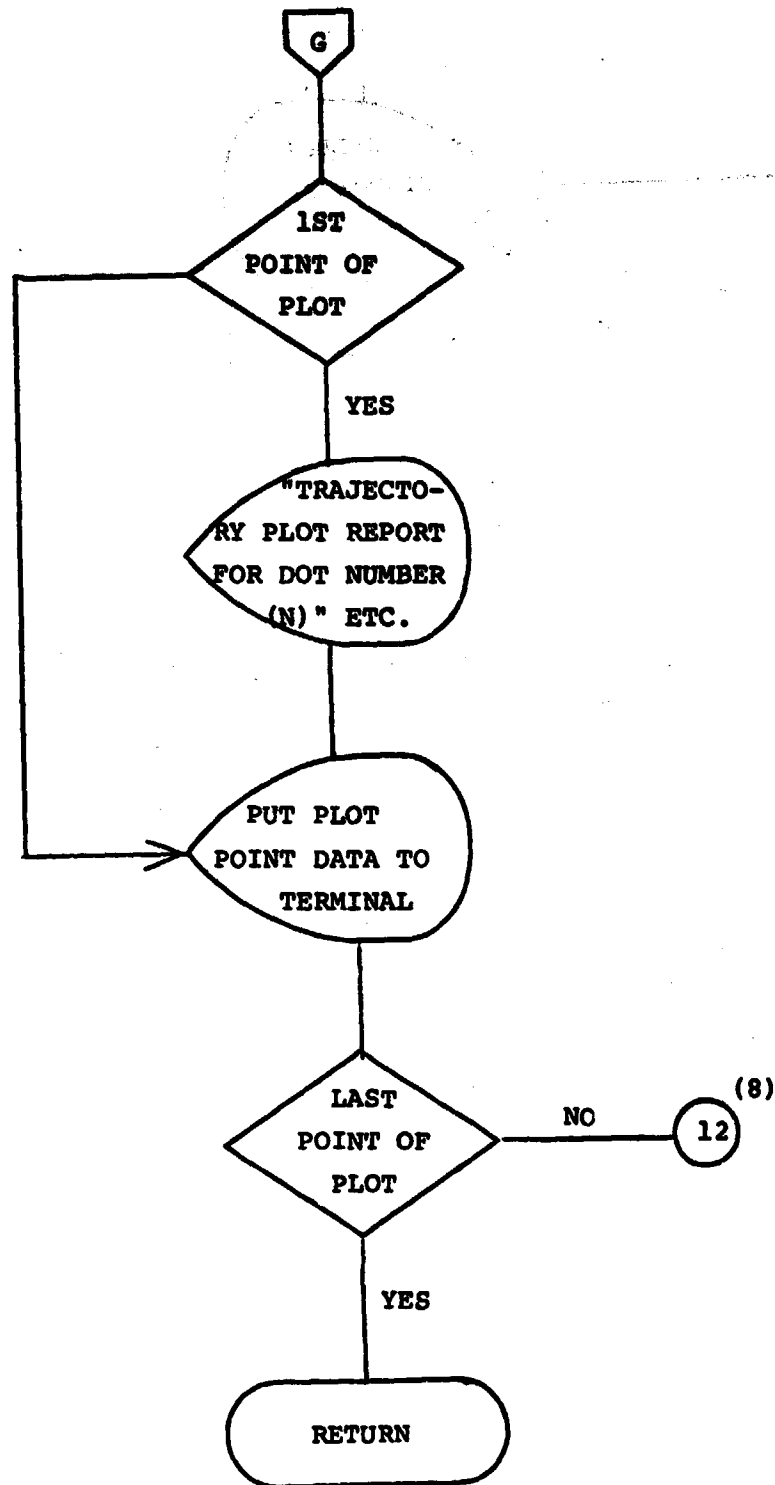


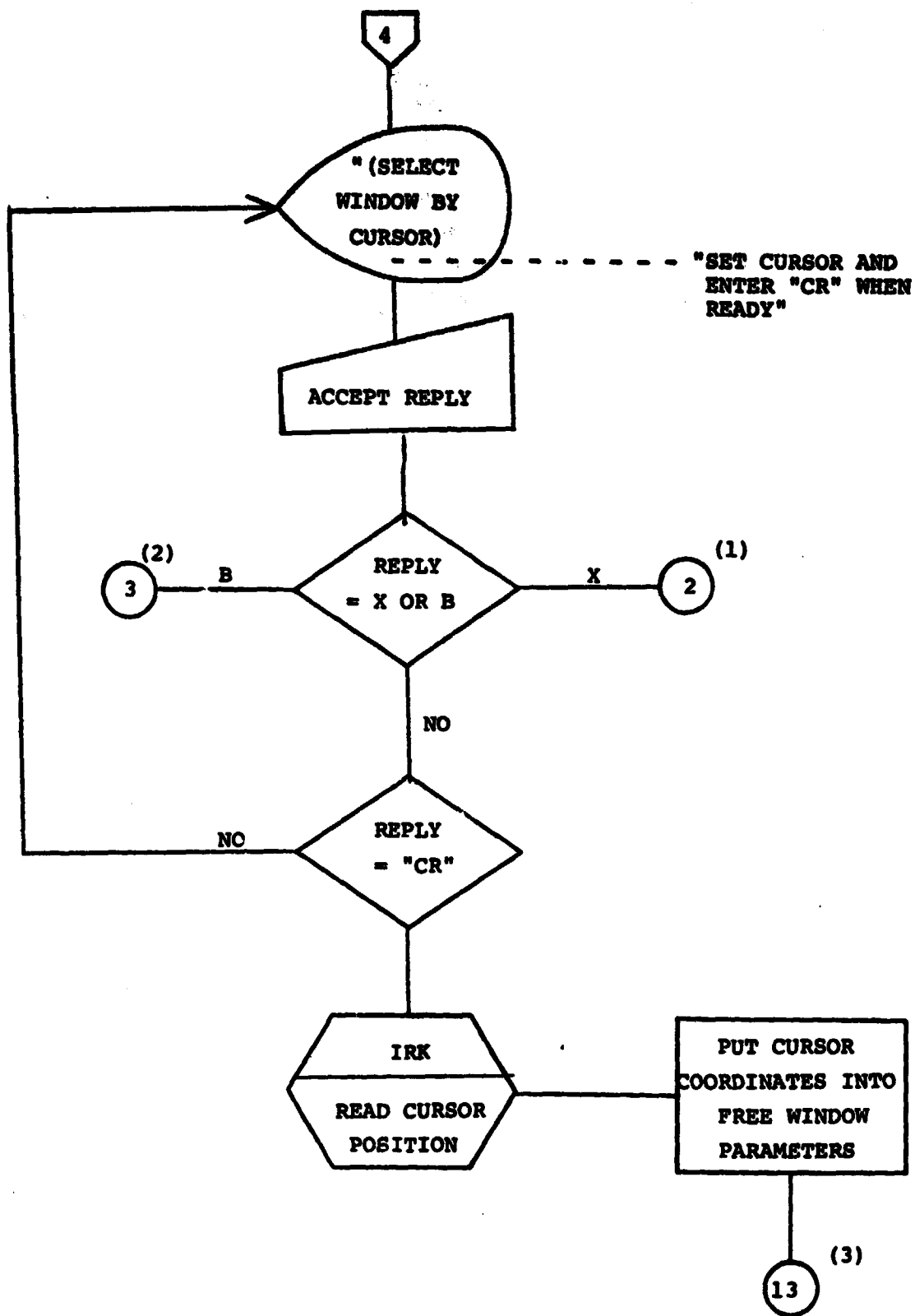












14. AUTOMATIC CLUSTER LABELLING PROGRAM ACLLAP

```

HF0RTAN IV-PLUS V02-04                      10130107    15-JUN-77                      PAGE 1
ACLLAP.FIN      /ZIRBLOCKS/NB
C              THE AUTOMATIC CLUSTER LABELLING APPLICATION PROGRAM
0001          IMPLICIT INTEGER (A-H,I,J,K,L,M,N,O,P,Q,R,S,T,U,V,W,X,Y,Z)
0002          BYTE MMS(8),W(74),D0TDAT,BUFD0T,CHANVC,NACO,ALABEL,R
0003          REAL AMN,BUFCM,TDIS,FLABEL
0004          INCLUDE 'SY:(300,3)CAMSC7MON.INC'
0005          INCLUDE 'SY:(300,3)CAMSPARAM.INC'
0006          PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=50
          1,MAXV=11,N0DTS=209,DLSP(P=10,DSSK(P=10,MAXACD=6,MAXACC=4,
          2N0SPWD=6,N0DTND=10
0007          EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,IX1),(C5,DISKID)
0008          INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)
          C*
0009          INTEGER ACDATE,SUBCAT,SUBPOP,CATKNT,CATTH
0010          BYTE CHNVEC,N0CHAN,N0SUB,D0TCAT,D0TCLU
0011          COMMON/COM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),N0CHAN,N0SUB,
          1SUBCAT(MAXSUB),SUBPOP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),N0D2,
          2N0DU,N0TH,D0TCAT(N0DTS),D0TCLU(N0DTS)
          C*
0012          INTEGER ADATES,SUNAZ,ANALST,FLDDAY,D0TDAY,PDATE1,TDATE1
0013          INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RAND0M,GRID
0014          BYTE DELFLG,N0ACO,S0ILGR,SUNEL,NSTART,NTYPE1,ALP,ALP0
0015          BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE
0016          COMMON/COM2/ISEG,DELFLG,N0ACO,ADATES(2,MAXACD),SPILGR(MAXACD),
          1SUNEL(MAXACD),SUNAZ(MAXACD),INDATE(2),ANALST(5),FLDDAY(2),
          2D0TDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
          3PDATE3(2),TDATE3(2),N0CAT,CATNAM(MAXCAT),ALP(MAXCAT),ALP0,
          4PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0
          C*
0017          INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
          1UFLAG4
0018          INTEGER PFLAG,DSKNT
0019          COMMON/COM3/PFLAG,DSKNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,
          1UFLAG2,UFLAG3,UFLAG4,EFLAG(MAXSUB)
          C*
0020          INTEGER TX1,TY1,TX2,TY2,ACDISP,G,E,DTWIND,D0TARY,GMIN,GMAX,FUL
0021          INTEGER SPWIND,CLAND,CLUWD
0022          COMMON/COM4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I11(4),G(4),
          1B(4),DTWIND(5,N0DTND),SPWIND(5,N0SPWD),IHWIND(4),NIWIND,
          2D0TARY(N0DTS),GMIN,GMAX,FUL(2,7),CLAND(8),CLUWD(8)
0023          COMMON/COM5/DISKID,RAND0M(N0DTS),GRID(N0DTS),DLABEL(N0DTS),
          1TYPE(N0DTS),RECL2C
0024          COMMON /HGT/BUFD0T(52,1),BUFCM(36),TDIS(N0DTS),
          1CHANVC(MAXCHN,MAXACD),NACO(MAXACC),ALABEL(N0DTS),R,
          2CLLAP(MAXSUB),FLABEL(MAXCAT),FLABEL(MAXCAT),ARIND(N0DTS)
0025          DIMENSION AMN(16,MAXSUB),ACAT(MAXCAT),MAJCAT(MAXSUB)
0026          DIMENSION ARAND(N0DTS),D0TDAT(16,N0DTS),CHAN(16),CLNAM(MAXSUB)
0027          I1=1
0028          CALL ASSIGN(5,'LPI')
0029          CALL ELAPSE(I1)
0030          CALL ASSIGN(6,'T11')
0031          CALL ASSIGN(10,'GPI')
0032          CALL TIME(MMS)
0033          CALL IDATE(I1,ID,IY)
0034          CALL ATTACH
0035          CALL OUTPUT(27,12)
0036          ALFLAG=1

```



```

ACCLAP,FTN      /TR:BLOCKS/NR
0037            NDT=0
0038            NT1=NTYPE1
0039            DO 10 I=1,NDOTS
0040            IF(TYPE(RANDOM(I)).NE.1) GO TO 10
0041            NT1=NT1+1
0042            NDT=NDT+1
0043            ARAND(RNDT)=RANDOM(I)
0044            ALABEL(NDT)=DLABEL(RANDOM(I))
0045            IF(NT1.EQ.0) GO TO 20
0046            10  CONTINUE
                   C
                   WRITE(5,420)(ARAND(I),I=1,NDOTS)
0047            420  FORMAT(1X,'ARAND',/, (1X,19(5)/)
0048            20  WRITE(6,1000)I=1,ND,IV,(HMS(J),J=1,8)
0049            1000  FORMAT(1X,50X,'DATE',12//12//12/1X,50X,'TIME',8(A1)/)
0050            WRITE(6,2110)
0051            2110  FORMAT(2X,'AUTOMATIC      CLUSTER      LABELLING      ')
0052            WRITE(6,2111)
0053            2111  FORMAT(1X,'                      MAY 1977      '///)
0054            30  N=0
0055            WRITE(6,1010) NTYPE1
0056            1010  FORMAT(2X,'TOTAL NUMBER OF TYPE1 LABELLING DOTS='13//
                   1  'S NUMBER OF TYPE1 LABELLING DOTS TO BE USED >')
0057            CALL OUTPUT(7)
0058            READ(6,1020) W
0059            1020  FORMAT(7A1)
0060            CALL FRONT(W,74)
0061            IF(W(1).EQ.'X'.OR.W(1).EQ.'B') GO TO 1999
0062            IF(W(1).EQ.' ') N=NTYPE1
0063            IF(N.EQ.NTYPE1) GO TO 40
0064            IN=0
0065            CALL INTFF(IN,4,74,N)
0066            IF(N.LE.0.OR.N.GT.NTYPE1) GO TO 30
0067            40  K=0
0068            WRITE(6,1030)
0069            1030  FORMAT('S NUMBER OF NEAREST NEIGHBOR(S) (DEFAULT=1) >')
0070            CALL OUTPUT(7)
0071            READ(6,1020) W
0072            CALL FRONT(W,74)
0073            IF(W(1).EQ.'X') GO TO 1999
0074            IF(W(1).EQ.'B') GO TO 30
0075            IF(W(1).EQ.' ') K=1
0076            IF(K.EQ.1) GO TO 50
0077            IK=0
0078            CALL INTFF(IK,W,74,K)
0079            IF(K.LE.0.OR.K.GT.N.OR.K.GT.NTYPE1) GO TO 40
0080            50  WRITE(6,1040) N,K
0081            1040  FORMAT(/2X,'YOU HAVE CHOSEN',1X,13,1X,'TYPE1 LABELLING DOTS AND',
                   1  1X,13,1X,'NEAREST NEIGHBOR(S)'///)
0082            70  WRITE(6,1050)
0083            1050  FORMAT('S (C)ONTINUE,E(X)IT OR (B)ACKUP >')
0084            CALL OUTPUT(7)
0085            READ(6,1020) W
0086            CALL FRONT(W,74)
0087            IF(W(1).EQ.'X') GO TO 1999
0088            IF(W(1).EQ.'B') GO TO 40
0089            IF(W(1).EQ.'C') GO TO 100

```


FORTRAN IV PLUS V02-04
ACLLAP.FTN /TR18LOCKS/HR
0090 00 TO 70

10130107

15-JUN-77

PAGE 3

C
C
C
COUNT CATEGORIES OF INTEREST STORE IN ACAT

0091 100 ICAT=1
0092 KNN=K
0093 NDBN
0094 DO 80 J=1,ND
0095 ACAT(1)=ALABEL(1)
0096 DO 90 KK=1,ICAT
0097 IF(ALABEL(J).EQ.ACAT(KK)) GO TO 80
0098 90 CONTINUE
0099 ICAT=ICAT+1
0100 ACAT(ICAT)=ALABEL(J)
0101 80 CONTINUE
0102 NCAT=ICAT

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C
C
C
WRITE(5,420) (ARAND(I),I=1,NDBTS)
C
C
C
WRITE(5,2000) NCAT,(ACAT(I),I=1,NCAT)
0103 2000 FORMAT(1X,'NCAT ICAT',2X,13,2X,2013/)

C
C
C
READ ALL DOT DATA INTO BUEDET VIA SUBROUTINE RDODAT

0104 CALL RDODAT(N,ARAND,NDBTDT,DFLAG)
C
C
C
WRITE(5,421) ((D'TDAT(I,ARAND(J)),I=1,16),J=1,N)
0105 421 FORMAT(1X,'D'TDAT',/,16(1X,13/))
0106 IF(DFLAG.EQ.1) WRITE(6,1060)
0107 1060 FORMAT(2X,'FATAL ERROR!!! CLASSIFICATION ACQUISITIONS DO NOT'
1 2X,'MATCH DATA BASE ACQUISITIONS'/)
0108 IF(DFLAG.EQ.1) GO TO 1090

C
C
C
SET EXISTENCE FLAG FOR NEAREST NEIGHBOR FILE

0109 EFLAG=1

C
C
C
WRITE HEADER OF NEAREST NEIGHBOR FILE

0110 LUN=8
0111 ISUB=1
0112 INNREC=1
0113 CALL ASSIGN (LUN,'SY:[300,1]NA,TMP1')
0114 DEFINE FILE LUN(=AXSUB,732,0,INREC)
0115 WRITE(LUN'INNREC) KAN,ND
0116 120 CONTINUE
C
C
C
WRITE(5,111) INNREC,NDSUB
0117 111 FORMAT(6X,'INNREC NDSUB',215/)
0118 IF(INNREC.GE.(NDSUB+1)) GO TO 130

C
C
C
READ MEAN OF CLUSTER ISUB VIA SUBROUTINE RDCLMN

0119 CALL RDCLMN(ISUB,AMN,ITACHN,CMAN)
C
C
C
WRITE(5,422) ISUB,(AMN(I,ISUB),I=1,16)
0120 422 FORMAT(1X,'ISUB AMN',6X,13,/8(1X,F6,2))
C
C
C
WRITE(5,334) ISUB,(AMN(I,ISUB),I=1,16)
0121 334 FORMAT(1X,'ISUB,AMN',12,5X,16F6,2/)
0122 DO 160 I=1,ND
0123 ARAND(I)=ARAND(I)

ACLLAP,FTN /TR,BLOCKS/WR

0124 140 CONTINUE

C

C

COMPUTE TDIS AND STABLE SORT

C

0125 CALL CLABEL(ISUB,ND,AMN,DEYDA,NCAT,ARAND,KNN,ITOGMN,ACAT)

0126 ICLS=ISUB

C

WRITE(9,1300) ICLS,(TDIS(I),I=1,N)

0127 1300 FORMAT(/6X,'ICLS TDIS',13,6X,10(1X,F6,2)/)

0128 110 NEWLAB(ICLS)=CLLAB(ICLS)

C

WRITE(9,333)(ARIND(I),DLABEL(ARIND(I)),TDIS(I),I=1,ND)

0129 333 FORMAT(1X,ARIND,DLABEL,TDIS',13,1X,12,F7,2)/)

0130 MAJCAT(ICLS)=IFIX(FLABEL(NCAT))

0131 INNREC=INNREC+1

0132 WRITE(LUN'INNREC')(ARIND(I),DLABEL(ARIND(I)),

1 TDIS(I),I=1,ND)

0133 ISUB=ISUB+1

0134 GO TO 120

0135 130 DO 140 INAM=1,MAXSUB

0136 140 CLNAM(INAM)=CATNAM(CLLAB(INAM))

0137 CALL CLOSE(8)

0138 1103 CALL OUTPUT(27,12)

0139 WRITE(6,1102)

0140 1102 FORMAT(/1X,'AVAILABLE REPORTS :')

1,/,1X,'1. BRIEF CLUSTER LABELLING REPORT'

2,/,1X,'2. DETAILED NEAREST NEIGHBOR REPORT'

3,/,1X,'REPORTS MAY BE DISPLAYED ON THE'

4,/,1X,'FOLLOWING OUTPUT DEVICES:'

5,/,1X,'1. TEKTRONIX TERMINAL'

6,/,1X,'2. GULD PRINTER'

7,/,1X,'3. LINE PRINTER'///)

0141 1108 WRITE(6,1104)

0142 1104 FORMAT('S SELECT DESIRED REPORT # >')

0143 CALL OUTPUT(7)

0144 READ(6,1105) W

0145 1105 FORMAT(24A1)

0146 CALL FRONT(W,74)

0147 IF(W(1),EQ,'X') GO TO 1999

0148 IF(W(1),EQ,'R') GO TO 1103

0149 IF(W(1),EQ,'1',OR,W(1),EQ,'2') GO TO 1106

0150 IF(W(1),EQ,' ') GO TO 1106

0151 WRITE(6,1107)

0152 1107 FORMAT(/1X,'***INVALID INPUT***'/)

0153 GO TO 1108

0154 1106 R=W(1)

0155 1113 WRITE(6,1109)

0156 1109 FORMAT('S SELECT DESIRED OUTPUT DEVICE # >')

0157 CALL OUTPUT(7)

0158 READ(6,1105) W

0159 CALL FRONT(W,74)

0160 IF(W(1),EQ,'X') GO TO 1999

0161 IF(W(1),EQ,'1',OR,W(1),EQ,' ') GO TO 1110

0162 IF(W(1),EQ,'2') GO TO 1111

0163 IF(W(1),EQ,'3') GO TO 1112

0164 WRITE(6,1107)

0165 GO TO 1113

0166 1110 A=3

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FORTRAN IV PLUS V02-04 10130107 15 JUN-77
ACCLAP.FTN /TRIBLOCKS/WR
0167 CALL ASSIGN(12,'T1')
0168 GO TO 1114
0169 1111 A=4
0170 CALL ASSIGN(12,'GP1')
0171 GO TO 1114
0172 1112 A=5
0173 CALL ASSIGN(12,'LP1')
0174 1114 IF(A.EQ.'1') GO TO 1115
0175 CALL KNNPRN(A)
0176 CALL CLOSE(12)
0177 IF(A.EQ.'0') GO TO 1999
0178 GO TO 1103
0179 1115 TITLE=0
0180 1116 IF(A.NE.4.AND.A.NE.5) GO TO 996
0181 IF(TITLE.EQ.'0') GO TO 996
0182 GO TO 1119
0183 1121 CALL CLOSE(12)
0184 GO TO 1103
0185 1998 CALL CLOSE(12)
0186 GO TO 1999
0187 1117 KF1=KF2+1
0188 KF2=KF2+5
0189 IF(KF2.GT.'0500') KF2=0500
0190 GO TO 1118
0191 996 KF1=1
0192 KF2=5
0193 IF(KF2.GT.'0500') KF2=0500
0194 997 CALL OUTPUT(27,12)
0195 TITLE=1
0196 CALL IDATE(IM,ID,IY)
C CALL TIME(HMS)
0197 WRITE(12,1000)IM,ID,IY,((-S(J),J=1,6)
0198 WRITE(12,1070)
0199 1070 FORMAT(1X,'BRIEF CLUSTER LABELLING REPORT'//)
0200 WRITE(12,1080)ISG,((ACCTF(I,J),I=1,2),J=1,MAXACC),
1 (CH(I),I=1,ITCH)
0201 1080 FORMAT(1X,'SEGMENT ID=',14/1X,'ACQUISITION(S)='4(1X,12,13)
1 /1X,'CLUSTERING CHANNELS=',16(1X,12))
0202 WRITE(12,1210)ND,KNN
0203 1210 FORMAT(1X,'NUMBER OF TYPE 1 LABELLING DOTS=',13/
1 1X,'NUMBER OF NEAREST NEIGHBORS USED=',13/)
0204 WRITE(12,1090)
0205 1090 FORMAT(1X,'CLUSTER',10X,'NUMBER OF MAJORITY',10X,'AUTOMATIC LABEL',
1 /1X,'NEAREST NEIGHBORS'//)
0206 1119 WRITE(12,1100)((1,MAJCAT(I),CLNAM(I)),I=KF1,KF2)
0207 1100 FORMAT(2X,13,18X,13,25X,A3//)
0208 IF(KF2.EQ.'0500') GO TO 1131
0209 1201 FORMAT(1X,'END OF REPORT'//)
0210 IF(A.EQ.'4'.OR.A.EQ.'5') GO TO 1117
0211 1120 WRITE(12,1200)
0212 1200 FORMAT('3 E(X)IT. (RETURN, OR PAGE (F)ORWARD >')
0213 CALL OUTPUT(7)
0214 READ(6,1120)W
0215 IF(W(1).EQ.'X') GO TO 1996
0216 IF(W(1).EQ.'R') GO TO 1101
0217 IF(W(1).EQ.'F')GO TO 996

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ACLLAP.FTN /TR1BLOCKS/WR
0218 WRITE(6,1107)
0219 GO TO 1120
0220 1131 WRITE(12,1201)
0221 GO TO 1120
0222 998 IF(KF2.EQ.NOSUB) GO TO 998
0223 KF1=KF2+1
0224 KF2=KF1+4
0225 IF(KF2.LE.NOSUB) GO TO 997
0226 KF2=NOSUB
0227 GO TO 997
0228 1999 CONTINUE
0229 WRITE(6,706)
0230 706 FORMAT('S E(X)IT OR (RECYCLE >')
0231 CALL OUTPUT(7)
0232 READ(6,1020) W
0233 CALL FRONT(W,74)
0234 IF(W(1).EQ.'X'.OR.W(1).EQ.' ') GO TO 999
0235 IF(W(1).EQ.'R') GO TO 150
0236 999 II=2
0237 CALL ELAPSE(11)
0238 IF(ALFLAG.EQ.0) GO TO 8888
0239 INCLUDE 'SYI(300,3)CAMSAVE.INC'
0240 * OPEN(UNIT=1,NAME='(300,1)GLOBAL.TMP11',FORM='UNFORMATTED',
* 1 TYPE='UNKNOWN',ERR=9999)
0241 * WRITE(1)C1
0242 * WRITE(1)C2
0243 * WRITE(1)C3
0244 * WRITE(1)C4
0245 * WRITE(1)C5
0246 * CLOSE(UNIT=1)
0247 * GO TO 9991
0248 * 9999 TYPE 9990
0249 * 9990 FORMAT(1X,'OPEN FAILURE ON (300,1)GLOBAL.TMP--NO RESTART')
0250 * 9991 CONTINUE
0251 8888 CALL CLOSE(6)
0252 CALL CLOSE(5)
0253 CALL CLOSE(10)
0254 CALL SETEF(50)
0255 CALL DETACH
0256 STOP
0257 END

```


ACLLAP.FTN

/TR:BLOCKS/WR

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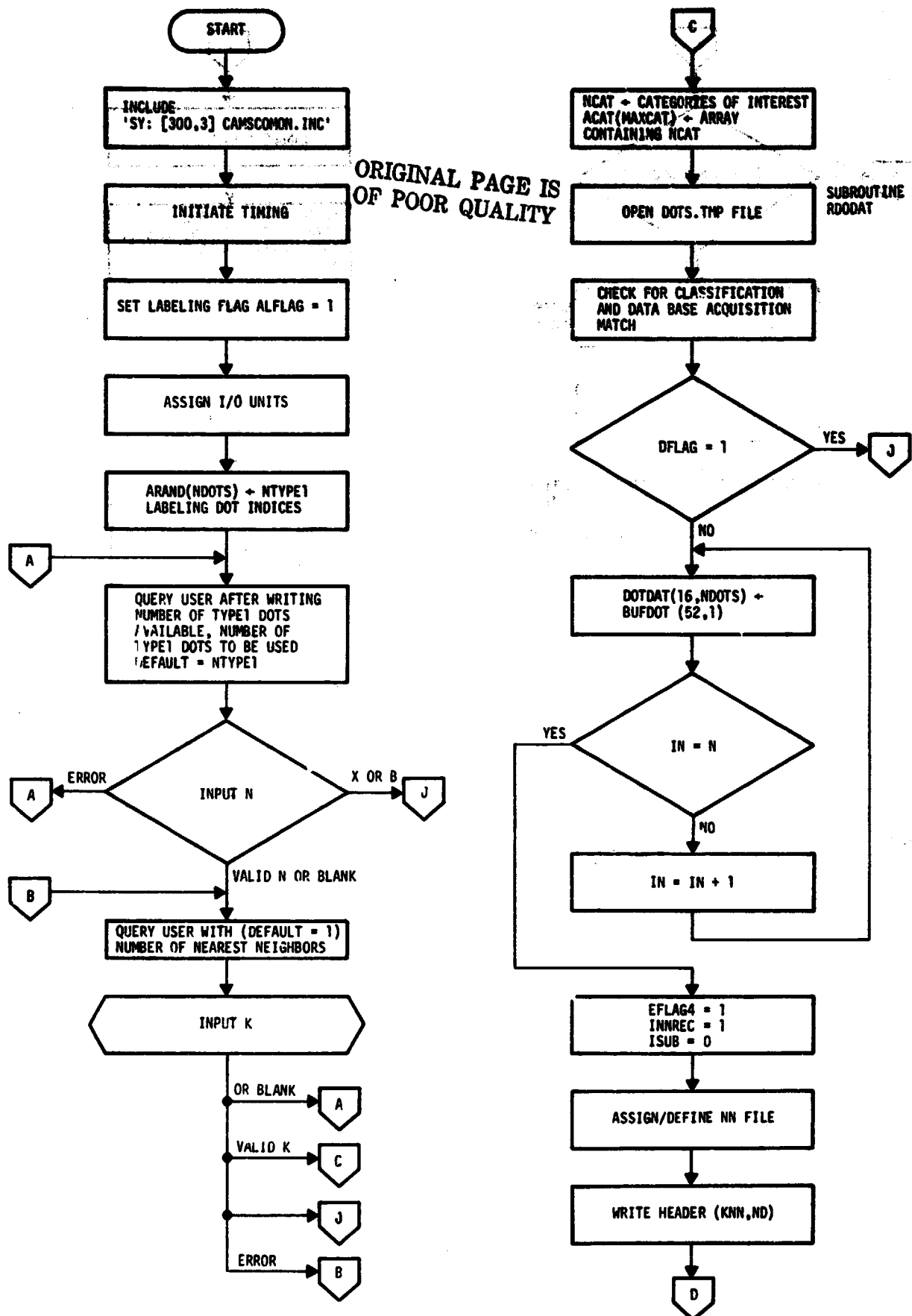
0167 CALL ASS'GN(12,'T11')
0168 GO TO 1114
0169 1111 A=4
0170 CALL ASSIGN(12,'GP1')
0171 GO TO 1114
0172 1112 A=5
0173 CALL ASSIGN(12,'LP1')
0174 1114 IF(R.EQ.'1') GO TO 1115
0175 CALL KNNPRN(A)
0176 CALL CLOSE(12)
0177 IF(A.EQ.0) GO TO 1999
0178 GO TO 1103
0179 1115 TITLE=0
0180 1116 IF(A.NE.4.AND.A.NE.5) GO TO 996
0181 IF(TITLE.EQ.0) GO TO 996
0182 GO TO 1119
0183 1121 CALL CLOSE(12)
0184 GO TO 1103
0185 1998 CALL CLOSE(12)
0186 GO TO 1999
0187 1117 KF1=KF2+1
0188 KF2=KF2+5
0189 IF(KF2.GT.NOSUB) KF2=NOSUB
0190 GO TO 1118
0191 996 KF1=1
0192 KF2=5
0193 IF(KF2.GT.NOSUB) KF2=NOSUB
0194 997 CALL OUTPUT(27,12)
0195 TITLE=1
0196 CALL IDATE(IM,ID,IY)
C CALL TIME(HMS)
0197 WRITE(12,1000)IM,ID,IY,(HMS(J),J=1,6)
0198 WRITE(12,1070)
0199 1070 FORMAT(1X,'BRIEF CLUSTER LABELLING REPORT'//)
0200 WRITE(12,1080)ISEG,((ACDATE(I,J),I=1,2),J=1,MAXACC),
1 (CHAN(I),I=1,ITCHN)
0201 1080 FORMAT(1X,'SEGMENT ID=',14/1Y,'ACQUISITION(S)='4(1X,12,13)
1 /1X,'CLUSTERING CHANNELS=',16(1X,12))
0202 WRITE(12,1210)MD,KNN
0203 1210 FORMAT(1X,'NUMBER OF TYPE 1 LABELLING DOTS=',13/
1 1X,'NUMBER OF NEAREST NEIGHBORS USED=',13/)
0204 WRITE(12,1090)
0205 1090 FORMAT(1X,'CLUSTER',10X,'NUMBER OF MAJORITY',10X,'AUTOMATIC LABEL',
1 /10X,'NEAREST NEIGHBORS'//)
0206 1119 WRITE(12,1100)((I,MAJCAT(I),CLNAM(I)),I=KF1,KF2)
0207 1100 FORMAT((2X,13,18X,13,25X,A3)/)
0208 IF(KF2.EQ.NOSUB) GO TO 1131
0209 1201 FORMAT(1X,'END OF REPORT'//)
0210 IF(A.EQ.4.OR.A.EQ.5) GO TO 1117
0211 1120 WRITE(6,1200)
0212 1200 FORMAT('3 E(X)IT, (R)ETURN, (P)AGE (F)ORWARD >')
0213 CALL OUTPUT(7)
0214 READ(6,1020)W
0215 IF(W(1).EQ.'X') GO TO 1998
0216 IF(W(1).EQ.'R') GO TO 1121
0217 IF(W(1).EQ.'F'.OR.W(1).EQ.' ') GO TO 998

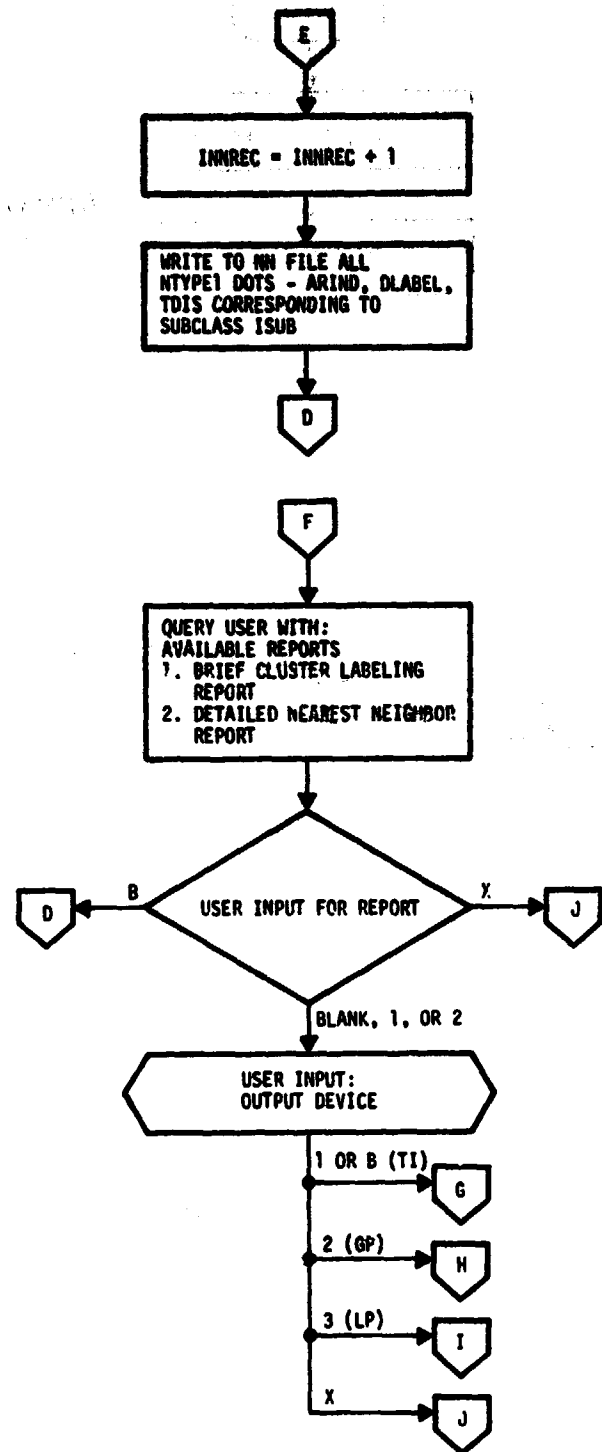
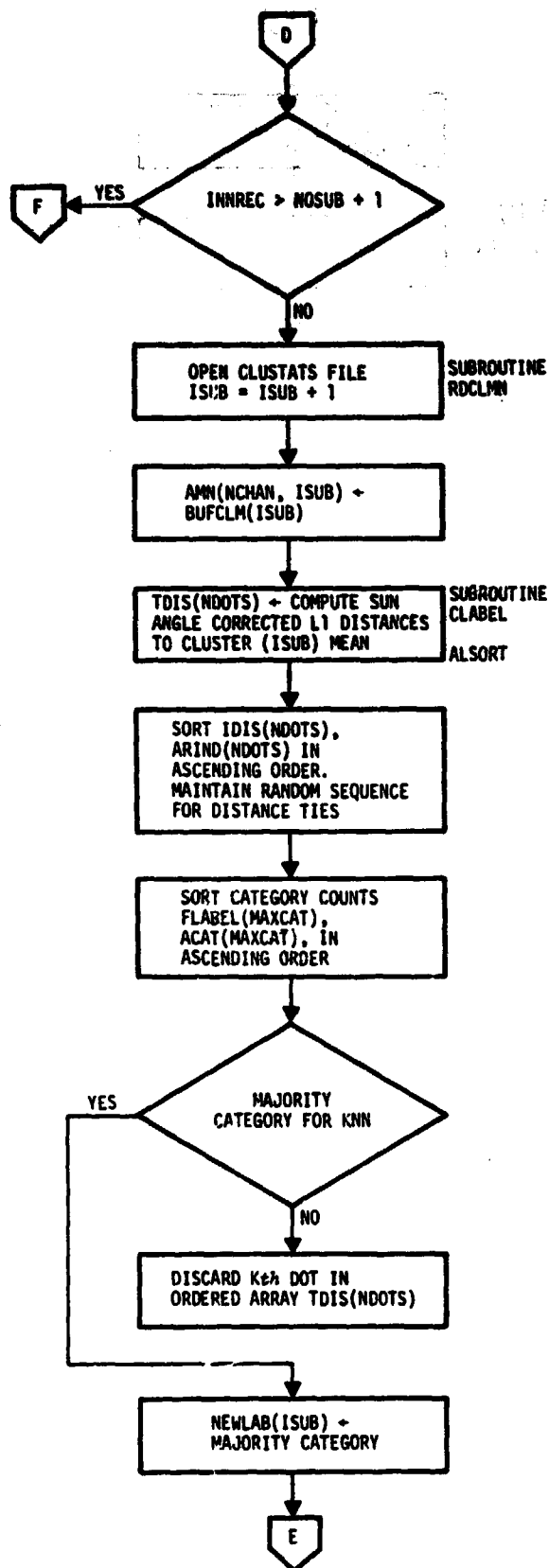
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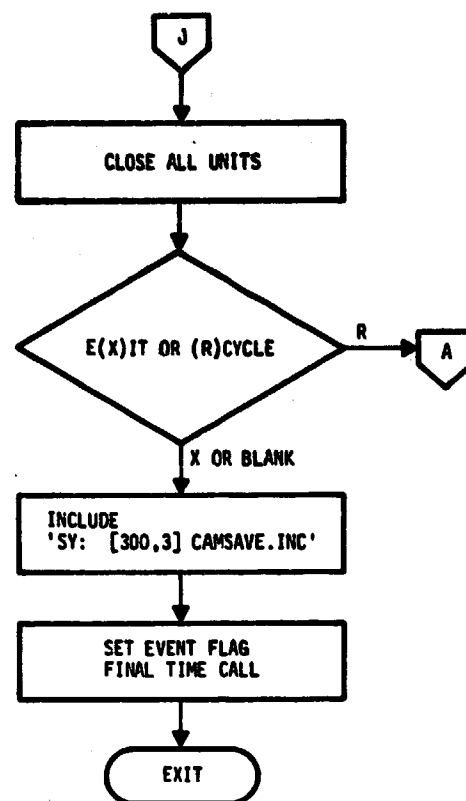
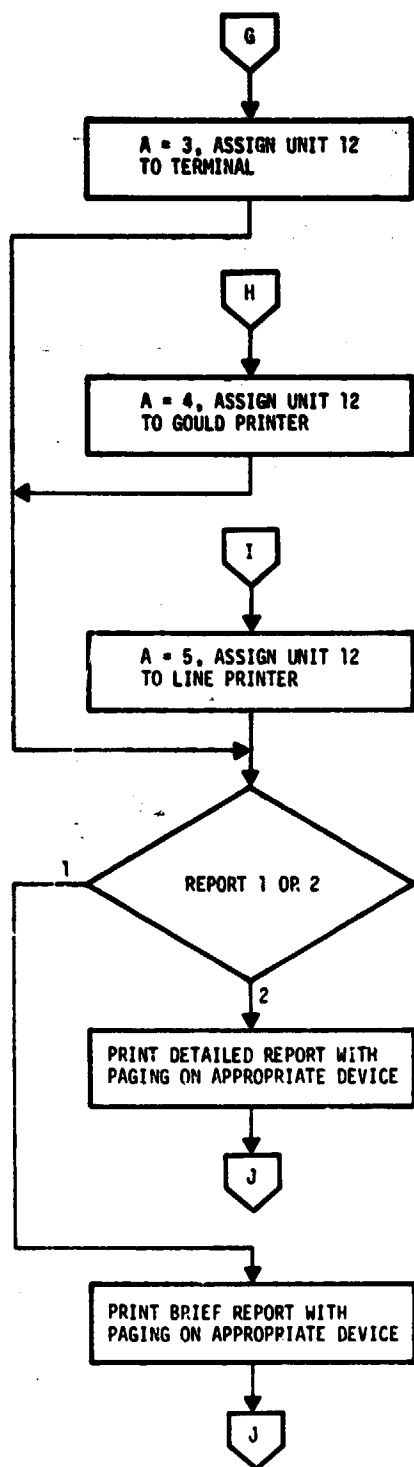
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ACLAP,FTN      /TR,0L0CKS/NR
0218           WRITE(6,1107)
0219           GO TO 1120
0220 1131      WRITE(12,1201)
0221           GO TO 1120
0222 992      IF(KF2.EQ.NDSUB) GO TO 996
0223           KF1=KF2+1
0224           KF2=KF1+4
0225           IF(KF2.LE.NDSUB) GO TO 997
0226           KF2=NDSUB
0227           GO TO 997
0228 1999      CONTINUE
0229           WRITE(6,706)
0230 706      FORMAT('S E(X)IT OR (R)ECYCLE >')
0231           CALL OUTPUT(7)
0232           READ(6,1020) M
0233           CALL FRONT(M,74)
0234           IF(M(1).EQ.'X'.OR.M(1).EQ.' ') GO TO 999
0235           IF(M(1).EQ.'R') GO TO 150
0236 999      II=2
0237           CALL ELAPSE(11)
0238           IF(ALFLAG.EQ.0) GO TO 8888
0239           INCLUDE 'SYI(300,3)CAMSAVE,INC'
0240 *         OPEN(UNIT=1,NAME='(300,1)GLOBAL.TMP11',FORM='UNFORMATTED',
*           1   TYPE='UNKNOWN',ERR=9999)
0241 *         WRITE(1)C1
0242 *         WRITE(1)C2
0243 *         WRITE(1)C3
0244 *         WRITE(1)C4
0245 *         WRITE(1)C5
0246 *         CLOSE(UNIT=1)
0247 *         GO TO 9991
0248 * 9999      TYPE 9990
0249 * 9990      FORMAT(1X,'OPEN FAILURE ON (300,1)GLOBAL.TMP--NO RESTART')
0250 * 9991      CONTINUE
0251 8888      CALL CLOSE(6)
0252           CALL CLOSE(5)
0253           CALL CLOSE(10)
0254           CALL SETEF(50)
0255           CALL DETACH
0256           STOP
0257           END
```


14. AUTOMATIC CLUSTER LABELLING PROGRAM ACLAP







14.1 SUBROUTINE RDO DAT

```

FORTRAN IV-PLUS V02.04      10131104      15 JUN 77      PAGE 10
RDO DAT,FTN      /TR1BLOCKS/WR
0001      SUBROUTINE RDO DAT(N,ARAND,DOTDAT,DFLAG)
0002      IMPLICIT INTEGER (A-H),(O-Z)
0003      BYTE HMS(8),W(74),DOTDAT,BUFDET,CHANVC,NACQ,ALABEL,X
0004      REAL AMN,BUFCLM,TDIS,FLABEL
0005      INCLUDE 'SYIC300,3JCAMSCOMON,INC'
0006      INCLUDE 'SYIC300,3JCAMSPARAM,INC'
0007      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NP1X=196,NL1N=117,MAXFLD=50
          1,MAXV=11,NDOTS=209,DLSKIP=10,DSSKIP=10,MAXACD=6,MAXACC=4,
          2NOSPWD=6,NODIND=10
0008      EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,TX1),(C5,DISKID)
0009      INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)
          C*
0010      INTEGER ACDATE,SUBCAT,SUBP2P,CATKNT,CATTH
0011      BYTE CHNVEC,NCHAN,NPSUB,DOTCAT,DOTCLU
0012      COMMON/COM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NCHAN,NPSUB,
          1SUBCAT(MAXSUB),SUBP2P(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NPD0,
          2NODU,NOTH,DOTCAT(NDOTS),DOTCLU(NDOTS)
          C*
0013      INTEGER ADATES,SUNAZ,ANALST,FLDDAY,DOTDAY,PDATE1,TDATE1
0014      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDON,GRID
0015      BYTE DELFLG,NACQ,S0ILGR,SUNEL,NSTART,NTYPE1,ALP,ALP0
0016      BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE
0017      COMMON/COM2/ISEG,DEFLG,NACQ,ADATES(2,MAXACD),S0ILGR(MAXACD),
          1SUNEL(MAXACD),SUNAZ(MAXACD),INDATE(2),ANALST(5),FLDDAY(2),
          2DOTDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
          3PDATE3(2),TDATE3(2),NOCAT,CATNAM(MAXCAT),ALP(MAXCAT),ALP0,
          4PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0
          C*
0018      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
          1UFLAG4
0019      INTEGER PFLAG,DSKMNT
0020      COMMON/COM3/PFLAG,DSKMNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1
          1,UFLAG2,UFLAG3,UFLAG4,NEULAB(MAXSUB)
          C*
0021      INTEGER TX1,TY1,TX2,TY2,ACDISP,G,B,DTHIND,DOTARY,GMIN,GMAX,FUL
0022      INTEGER SPWIND,CLAWND,CLUWND
0023      COMMON/COM4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I11(4),G(4),
          1R(4),DTHIND(5,NODTHIND),SPWIND(5,NOSPWD),IMWIND(4),NUMDOT,
          2DOTARY(NDOTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)
0024      COMMON/COM5/DISKID,RANDON(NDOTS),GRID(NDOTS),DLABEL(NDOTS),
          1TYPE(NDOTS),RECL0C
0025      COMMON /HGT/BUFDET(52,1),BUFCLM(36),TDIS(NDOTS),
          1CHANVC(MAXCHN,MAXACD),NACQ(MAXACC),ALABEL(NDOTS),X,
          2CLLAB(MAXSUB),ILABEL(MAXCAT),FLABEL(MAXCAT),ARIND(NDOTS)
0026      DIMENSION ARAND(NDOTS),DOTDAT(16,NDOTS)
          C
          C
          C      INITIALISE DOTDAT ARRAY
          C
0027      ID=1
0028      DO 100 JD=1,16
0029      DOTDAT(JD,ID)=0
0030      100 CONTINUE
0031      IF(ID.EQ.N)GO TO 110
0032      ID=ID+1
0033      GO TO 120
          C

```


R00DAT.FTN

/TRIBLOCKS/WR

C ASSIGN AND DEFINE DOT DATA FILE

```
0034 110 DFLAG=0
0035 LUN=7
0036 IN=1
0037 1 OPEN(UNIT=7,NAME='SVI(300,1)DOTS.TMP',TYPE='OLD',
ACCESS='DIRECT',RECORDSIZE=13,MAXREC=NDOTS)
C
C CHECK FOR CLASSIFICATION AND DATA BASE ACQ. MATCH
C
0038 ZFIX=0
0039 NN=1
0040 J=1
0041 1 WRITE(5,333)(ACDATE(2,K),K=1,MAXACC),
ADATES(2,K),K=1,MAXACD)
0042 333 FORMAT(1X,'ACDATE ADATES',/,1X,4I6,4X,6I6/)
0043 WRITE(5,334) DFLAG
0044 334 FORMAT(1X,'DFLAG',13/)
0045 40 DO 10 I=1,MAXACD
0046 IF(ACDATE(2,J).EQ.0) GO TO 20
0047 IF(ACDATE(2,J).NE.ADATES(2,I)) GO TO 10
0048 GO TO 30
0049 10 CONTINUE
0050 15 DFLAG=1
0051 CLOSE(UNIT=7)
0052 RETURN
0053 20 ZFIX=ZFIX+1
0054 IF(J.EQ.MAXACC) GO TO 50
0055 J=J+1
0056 GO TO 40
0057 30 NACC(NN)=1
0058 IF(J.EQ.MAXACC) GO TO 50
0059 NN=NN+1
0060 J=J+1
0061 GO TO 40
0062 50 IF(ZFIX.EQ.4) GO TO 15
0063 ZFIX=0
0064 WRITE(5,111) DFLAG,(NACC(I),I=1,4)
0065 111 FORMAT(1X,'DFLAG AFTER,AND NACC',13,4(2X,13)/)
0066 K=1
0067 DO 130 J=1,6
0068 DO 140 I=1,4
0069 CHANVC(I,J)=0
0070 140 CONTINUE
0071 130 CONTINUE
0072 200 DO 210 II=1,MAXCHN
0073 KK=NACC(K)
0074 CHANVC(II,KK)=CHANVC(II,K)
0075 210 CONTINUE
0076 IF(K.EQ.MAXACC) GO TO 60
0077 K=K+1
0078 GO TO 200
0079 60 CONTINUE
0080 90 IDREC=ARAND(IN)
0081 READ(LUN,IDREC) (DUFDOT(I,1),I=1,52)
```

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FORTRAN IV-PLUS V02-04 10131104 12-JUN-77
R00DAT.FTN /TRI0LOCKS/WR
C READ DET DATA VECTORS FROM BUFFER BUFDET
C

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```
0082      JN=1
0083      150  DB 70 KN=1,MAXCHN
0084      KKK=NACB(JN)
0085      IF(CHANVC(KN,KKK),EQ,0) GO TO 70
0086      JJ=(KKK-1)*8+5+(KN-1)
0087      NCHAN=KN+4*(JN-1)
0088      DETDAT(NCHAN,1DREG)=BUFDET(JJ,1)
0089      70    CONTINUE
0090      IF(JN,EQ,MAXACC) GO TO 80
0091      JN=JN+1
0092      GO TO 150
0093      80    IF(IN,EQ,N) GO TO 160
0094      IN=IN+1
0095      GO TO 90
0096      160   CLOSE(UNIT=7)
0097      CALL CLOSE(10)
0098      RETURN
0099      END
```


14.1 SUBROUTINE RDODAT

A flow chart for this subroutine is not available.

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14.2 SUBROUTINE RDCLMN

```

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RDCLMN,FTN      /TRI@LBCKS/WR
0001      SUBROUTINE RDCLMN(I SUR,AMN,IT@CHN,CHAN)
0002      IMPLICIT INTEGER (A-M),(N-Z)
0003      BYTE HNS(8),H(74),D@T@T,DU@D@T,CHANVC,NACC,ALABEL,X
0004      REAL AMN,BUFCLM,TDIS,FLABEL
0005      INCLUDE 'SYI(300,3)CAMSCOM@N,INC'
0006      INCLUDE 'SYI(300,3)CAMSPAR@N,INC'
0007      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NP(X)=196,NL(N)=117,MAXFL=90
      1,MAXV=11,N@D@T@S=209,DL@K@P=10,DSSK@P=10,MAXACD=6,MAXACC=4,
      2N@SPWD=6,N@D@TWD=10
0008      EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,TX1),(C5,DISKID)
0009      INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)
      C@
0010      INTEGER ACDATE,SUBCAT,SUBP@P,CATKNT,CATTH
0011      BYTE CHNVEC,N@CHAN,N@SUB,D@TCAT,D@TCLU
0012      COMMON/C@M1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),N@CHAN,N@SUR,
      1SUBCAT(MAXSUR),SUB@P(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),N@D@,
      2N@DU,N@TH,D@TCAT(N@D@T@S),D@TCLU(N@D@T@S)
      C@
0013      INTEGER ADATES,SUN@Z,ANALST,FLDDAY,D@T@DAY,PDATE1,TDATE1
0014      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RAND@M,GPID
0015      BYTE DELFLG,N@ACC,S@ILGR,SUNEL,NSTART,NTYPE1,ALP,ALP@
0016      BYTE PCTCT,PCTCT@,VAR,VAR@,DLABEL,TYPE
0017      COMMON/C@M2/ISEG,DEFLG,N@ACC,ADATES(2,MAXACD),S@ILGR(MAXACD),
      1SUNEL(MAXACD),SUN@Z(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),
      2D@T@DAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
      3PDATE3(2),TDATE3(2),N@CAT,CATNAM(MAXCAT),ALP(MAXCAT),ALP@,
      4
      PCTCT(MAXCAT),PCTCT@,VAR(MAXCAT),VAR@
      C@
0018      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
      1UFLAG4
0019      INTEGER PFLAG,DSKM@T
0020      COMMON/C@M3/PFLAG,DSKM@T,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,
      1,UFLAG2,UFLAG3,UFLAG4,P@E@LAB(MAXSUR)
      C@
0021      INTEGER TX1,TY1,TX2,TY2,ACDISP,G,G,D@T@IND,D@T@RY,GMIN,GMAX,FUL
0022      INTEGER SPWIND,CL@W@ND,CLUW@ND
0023      COMMON/C@M4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I(1(4),G(4),
      1@ (4),D@T@IND(5,N@D@TWD),SPWIND(5,N@SPWD),IMWIND(4),NUM@D@T,
      2D@T@RY(N@D@T@S),GMIN,GMAX,FUL(2,7),CL@W@ND(8),CLUW@ND(9)
0024      COMMON/C@M5/DISKID,RAND@M(N@D@T@S),GRID(N@D@T@S),DLABEL(N@D@T@S),
      1TYPE(N@D@T@S),RECL@C
0025      COMMON /WGT/BUF@D@T(52,1),BUFCLM(36),TDIS(N@D@T@S),
      1 CH@V@C(MAXCHN,MAXACD),N@C@C(MAXACC),ALABEL(N@D@T@S),
      2 X,CLLAB(MAXSUB),ILABEL(MAXCAT),FLABEL(N@D@T@S),ARIND(N@D@T@S)
      DIMENSION AMN(16,MAXSUB),CHAN(16)
      LUN=9
0026      OPEN(UNIT=9,NAME='SYI(370,1)CLUST@T@S,THP',TYPE='OLD',
0027      1 ACCESS='DIRECT',RECORDSIZE=36,MAXREC=MAXSUB)
0028      ITC@H@N=0
0029      READ(LUN,I SUR) (BUFCLM(I),I=1,36)
0030      DO 10 J=1,MAXACC
0031      DO 20 K=1,MAXCHN
0032      IF(CHNVEC(K,J).EQ.0) GO TO 20
0033      NCH@N=K+4*(J-1)
0034      ITC@H@N=ITC@H@N+1
0035      CHAN(ITC@H@N)=NCH@N
0036

```


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RDCLMN,FTN

/TR:BLOCKS/NR

0037

JJ=(NCHAN-1)*2+1

0038

IF(JJ,GE,8,07,JJ,GE,16,07,JJ,GE,24) JJ=JJ+(JJ/8)

0039

ICLS=ISUR

0040

AMN(NCHAN,ICLS)=9UFCLM(JJ)

0041

20

CONTINUE

0042

10

CONTINUE

0043

CLPSE(UNIT=9)

0044

RETURN

0045

END

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14.2 SUBROUTINE RDCLMN

A flow chart for this subroutine is not available.

14.3 SUBROUTINE CLABEL

```

FORTRAN IV-PLUS V02-04      10131146      12 JUN-77      PAGE 21
CLABEL,FTN      /TRIBLECKS/HR
0001      SUBROUTINE CLABEL (ISUB,N,AMN,DOTDAT,NCAT,ARAND,
          1 KNA,ITQCHN,ACAT)
0002      IMPLICIT INTEGER (A-H),(I-Z)
0003      BYTE HMS(8),W(74),DOTDAT,BUFDOT,CHANVC,NACQ,ALABEL,X
0004      REAL AMN,BUFCLM,TDIS,FLABEL,RUNANG
0005      INCLUDE 'SYIC300,3JCAMSCOMON,INC'
0006      INCLUDE 'SYIC300,3JCAHSPARAM,INC'
0007      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=50
          1,MAXV=11,NDOTS=209,DLSKIP=10,DSSKIP=10,MAXACQ=6,MAXACC=4,
          2NOSPWD=6,NDOTWD=10
0008      EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,IX1),(C5,DISKID)
0009      INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)
          *
          * C*
0010      INTEGER ACDATE,SUBCAT,SUBPMP,CATKNT,CATTH
0011      BYTE CHNVEC,NQCHAN,NOSUB,DOTCAT,DZTCU
0012      COMMON/COM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NQCHAN,NOSUB,
          1SUBCAT(MAXSUB),SUBPMP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NDZT,
          2NEDU,NQTH,DOTCAT(NDOTS),DZTCU(NDOTS)
          *
          * C*
0013      INTEGER ADATES,SUNAZ,ANALST,FLDDAY,DZTDAY,PDATE1,TDATE1
0014      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDOM,GRID
0015      BYTE DELFLG,NQACQ,SQILGR,SUNEL,ASTART,NTYPE1,ALP,ALPB
0016      BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE
0017      COMMON/COM2/ISEG,DELFLG,NQACQ,ADATES(2,MAXACC),SQILGR(MAXACC),
          1SUNEL(MAXACC),SUNAZ(MAXACC),IMDATE(2),ANALST(5),FLDDAY(2),
          2DZTDAY(2),ASTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
          3PDATE3(2),TDATE3(2),NQCAT,CATNAM(MAXCAT),ALP(MAXCAT),ALPB,
          4 PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0
          *
          * C*
0018      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
          1UFLAG4
0019      INTEGER PFLAG,DSKMT
0020      COMMON/COM3/PFLAG,DSKMT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1
          1,UFLAG2,UFLAG3,UFLAG4,NEWLAB(MAXSUB)
          *
          * C*
0021      INTEGER TX1,TY1,TX2,TY2,ACDISP,G,B,DZTIND,DZTARY,GMIN,GMAX,FUL
0022      INTEGER SPWIND,CLAWND,CLUWND
0023      COMMON/COM4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I11(4),G(4),
          1B(4),DZTIND(5),DZTARY(5),SPWIND(5,NOSPWD),IMWIND(4),NUMDOT,
          2DZTARY(NDZTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)
0024      COMMON/COM5/DISKID,RANDOM(NDOTS),GRID(NDOTS),DLABEL(NDOTS),
          1TYPE(NDOTS),RECLAC
0025      COMMON/COM6/BUFDOT(52,1),BUFCLM(36),TDIS(NDOTS),
          1 CHNVC(MAXCHN,MAXACC),NACQ(MAXACC),ALABEL(NDOTS),
          2 X,CLLAB(MAXSUB),ILABEL(MAXCAT),FLABEL(MAXCAT),ARIND(NDOTS)
0026      DIMENSION ARAND(NDOTS),DOTDAT(16,NDOTS),AMN(16,MAXSUB)
0027      DIMENSION SUNANG(4,81),ACAT(MAXCAT)
0028      DATA SUNANG /,857,,861,,863,,864,,859,,862,,864,,866,
          1 ,861,,864,,866,,868,,863,,866,,868,,870,,865,,869,,870,,872,
          2 ,868,,871,,873,,875,,871,,874,,876,,878,,875,,878,,879,,881,
          3 ,878,,881,,883,,884,,882,,885,,887,,888,,887,,890,,891,,892,
          4 ,892,,894,,896,,897,,897,,899,,901,,902,,902,,904,,906,,907,
          5 ,908,,910,,911,,912,,914,,916,,917,,919,,921,,923,,924,,925,
          6 ,926,,929,,930,,931,,935,,937,,937,,938,,943,,944,,945,,946,
          7 ,951,,952,,953,,954,,960,,961,,961,,962,,969,,970,,970,,971,
          8 ,979,,979,,980,,980,,989,,989,,990,,990,,1,000,1,000,1,000,1,100,

```



```

0029      KSTORE=KNN
0030      INDX=0
0031      M=1
0032      40      MM=ARAND(M)
0033      ICLS=ISUR
0034      TDIS(M)=0.0
0035      ICHAN=1
0036      DO 10 J=1,MAXACC
0037      KSUN=NACQ(J)
0038      IF(KSUN,EQ,0) GO TO 200
0039      SUN=SUNEL(KSUN)
0040      ISUN=85-SUN+1
0041      200      DO 20 K=1,MAXCHN
0042      IF(CHNVEC(K,J),EQ,0) GO TO 20
0043      NCHAN=K+MAXACC*(J-1)
0044      INDX=(K-1)+(J-1)*MAXACC
0045      IND=16*(MM-1)
0046      INDX=INDX+IND
0047      A=IBYTE(INDX,DRTDAT)
0048      TDIS(M)=TDIS(M)+
1      (ABS(AMN(NCHAN,ICLS)-FLOAT(A)))*SUNANG(K,ISUN)
0049      IF(ICHAN,EQ,IT0CHN) GO TO 30
0050      ICHAN=ICHAN+1
0051      20      CONTINUE
0052      10      CONTINUE
0053      30      IF(M,EQ,N) GO TO 50
0054      M=M+1
0055      GO TO 40
0056      50      CONTINUE
C
C      SORT DISTANCE ARRAY TDIS
C
C      WRITE(5,9876) (ARIND(I),I=1,N)

```


CLABEL,FTN

0057 9876

/TR:BLCKS/WR
FORMAT(1X,'ARIND',2X,10I3/)

C

WRITE(5,9875) (TDIS(I),I=1,N)

0058 9875

FORMAT(1X,'TDIS',2X,10F7.2/)

0059

C

CALL ALSORT(ICLS,TDIS,N,ARIND)

C

WRITE(5,9876) (ARIND(I),I=1,N)

C

WRITE(5,9875) (TDIS(I),I=1,N)

0060 110

IF(KNN.EQ.1) FLABEL(NCAT)=1.0

0061

C

IF(KNN.EQ.1) GO TO 201

C

COUNT LABELS CORRESPONDING TO L1 DISTANCE FOR EACH DOT

C

INITIALIZE LABEL COUNT ARRAY

C

0062

DO 60 IL=1,NCAT

0063

ILABEL(IL)=0

0064

60

CONTINUE

0065

DO 70 J=1,NCAT

0066

DO 80 MN=1,KNN

0067

AA=ARIND(MN)

0068

IF(ACAT(J).NE. FLABEL(AA))GO TO 80

0069

FLABEL(J)=ILABEL(J)+1

0070

80

CONTINUE

0071

70

CONTINUE

C

WRITE(5,112) KNN,(ILABEL(I),I=1,NCAT)

0072

112

FORMAT(1X,'KNN, FLABEL',13,2(2X,13)/)

0073

DO 180 I=1,NCAT

0074

FLABEL(I)=FLABEL(ILABEL(I))

0075

180

CONTINUE

C

WRITE(5,9874) (ACAT(I),I=1,NCAT)

0076

9874

FORMAT(1X,'ACAT',2X,10I4/)

C

WRITE(5,9873) (FLABEL(I),I=1,NCAT)

0077

9873

FORMAT(1X,'FLABEL',2X,10F4.2/)

0078

CALL ALSORT(ICLS,FLABEL,NCAT,ACAT)

C

WRITE(5,9874) (ACAT(I),I=1,NCAT)

C

WRITE(5,9873) (FLABEL(I),I=1,NCAT)

C

C

FIND MAJORITY VOTE CATEGORY

C

0079

IF(FLABEL(NCAT).EQ.FLABEL(NCAT-1)) GO TO 130

0080

170

CLLAB(ICLS)=ACAT(NCAT)

0081

GO TO 150

C

C

CASE OF TIE,SET KKK=1

C

0082

150

KNN=KNN-1

0083

GO TO 110

0084

201

CLLAB(ICLS)=FLABEL(ARIND(1))

0085

150

KNN=KSTORE

0086

RETURN

0087

END

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14.3 SUBROUTINE CLABEL

A flow chart for this subroutine is not available.

14.4 SUBROUTINE ALSORT

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ALSORT.FTN

/TR:RLOCKS/WR

0001

SUBROUTINE ALSORT(ISUB,SUMDIS,M,LABEL)

C
C
C
C

THIS SUBROUTINE STABLE SORTS DISTANCES IN INCREASING ORDER
BY INTERCHANGE

0002

IMPLICIT INTEGER (A-H),(O-Z)

0003

REAL SUMDIS,SAVE1

0004

INCLUDE 'SYIC300.3JCAMSPARAM.INC'

0005

PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLO=50
1,MAXV=11,NDOTS=299,DLSKIP=10,DSSKIP=10,MAXACD=6,MAXACC=4,
2NOSPW=6,NODTWD=10

0006

DIMENSION LABEL(NDOTS)

0007

DIMENSION SUMDIS(NDOTS)

C

WRITE(5,9876)

0008

9876

FORMAT(1X,'ALSORT'/)

0009

IF(M.LT.2) RETURN

0010

DO 20 I=2,M

0011

DO 10 J=1,I

0012

IF(SUMDIS(I).GE.SUMDIS(J)) GO TO 10

0013

SAVE1=SUMDIS(I)

0014

SAVE2=LABEL(I)

0015

SUMDIS(I)=SUMDIS(J)

0016

LABEL(I)=LABEL(J)

0017

SUMDIS(J)=SAVE1

0018

LABEL(J)=SAVE2

0019

10

CONTINUE

0020

20

CONTINUE

0021

RETURN

0022

END

103

10 3020

14.4 SUBROUTINE ALSORT

A flow chart for this subroutine is not available.

14.5 SUBROUTINE KNNPRN

```

FORTRAN IV-PLUS V02-04      10132127      19-JUN-77      PAGE 29
KNNPRN,FTN      /TR:BLOCKS/NR
0001      SUBROUTINE KNNPRN(A)
0002      IMPLICIT INTEGER(A-Z)
0003      PARAMETER LINES=5
0004      INCLUDE 'SYI(300,3)CAMSCOMON.INC'
0005 *      INCLUDE 'SYI(300,3)CAMSPARAM.INC'
0006 *      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=50
*      1,MAXV=11,NDOTS=209,DLSKIP=10,DSSKIP=10,MAXACD=6,MAXACC=4,
*      2NOSPWD=6,NZDTWD=10
0007 *      EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,IX1),(C5,DISKID)
0008 *      INTEGER C1(469),C2(256),C3(71),C4(349),C5(629)
*
*      C*
0009 *      INTEGER ACDATE,SUBCAT,SUBPCP,CATKNT,CATTH
0010 *      BYTE CHNVEC,NBCHAN,NPSUB,DOTCAT,DOTCLU
0011 *      COMMON/COM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NBCHAN,NPSUB,
*      1SUBCAT(MAXSUB),SUBPCP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NBDO,
*      2NBDOU,NZTH,DOTCAT(NDOTS),DOTCLU(NDOTS)
*
*      C*
0012 *      INTEGER ADATES,SUNAZ,ANALST,FLDDAY,DOTDAY,PDATE1,TDATE1
0013 *      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDOM,GRID
0014 *      BYTE DELFLG,NBACQ,SILGR,SUNEL,ISTART,NTYPE1,ALP,ALP0
0015 *      BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE
0016 *      COMMON/COM2/ISEG,DELFLG,NBACQ,ADATES(2,MAXACC),SILGR(MAXACC),
*      1SUNEL(MAXACC),SUNAZ(MAXACC),IMDATE(2),ANALST(5),FLDDAY(2),
*      2DOTDAY(2),ISTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
*      3PDATE3(2),TDATE3(2),NBACQ,CATNAM(MAXCAT),ALP(MAXCAT),ALP0,
*      4PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0
*
*      C*
0017 *      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
*      1UFLAG4
0018 *      INTEGER PFLAG,DSKMT
0019 *      COMMON/COM3/PFLAG,DSKMT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1
*      1,UFLAG2,UFLAG3,UFLAG4,NEWLAB(MAXSLR)
*
*      C*
0020 *      INTEGER 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KNNPRN.FTN /TR:BLOCKS/HR

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0039 KF1=1
0040 KF2=LINES
0041 KS1=1
0042 KS2=5
0043 CALL ASSIGN (LUN,'SY:300,1JNN,TMP11')
0044 DEFINE FILE LUN(MXSUB,732,0,NNRBC)
0045 READ (LUN,INNRBC),KNN,ND
0046 IF (KS2,GT,KNN) KS2=KNN
0047 IF (NOSUB,GE,KF2) GO TO 9
0048 KF2=NOSUB
0049 9 I1=KF1+1
0050 I2=KF2+1
0051 KK=0
0052 DO 10 K=I1,I2
0053 KKK=K+1
0054 READ (LUN,K) (DBTNUM(I,KK),CLULAB(I,KK),CLUDIS(I,KK),I=1,KNN)
0055 10 CONTINUE
0056 C11 CALL ATTACH
0057 11 IF (A,NE,4,AND,A,NE,5) GO TO 19
0058 IF (TITLE,EQ,1) GO TO 12
0059 19 CALL OUTPUT(27,12)
0060 CALL IDATE(IM,ID,IY)
0061 CALL TIME(HMS)
0062 TITLE=1
0063 20 WRITE(12,20)IM,IY,(HMS(J),J=1,3)
0064 F0RMAT(1X,50X,'DATE:',12,'/',12,'/',12/1X,50X,'TIME:',3A1/)
0065 WRITE(12,30)
0066 30 F0RMAT(1X,'CLUSTER NEAREST NEIGHBOR REPORT'//)
0067 40 WRITE(12,40)ISEG,((ACDATE(I,J),I=1,2),J=1,MAXACC),
1 (CHAN(I),I=1,IT0CHN)
0068 F0RMAT(1X,1SEGMENT ID:',14/1X,'ACQUISITION(S)='
1 4(1X,12,13)/1X,'CLUSTERING CHANNELS=',16(1X,12))
0069 50 WRITE(12,50)ND,KNN
0070 F0RMAT(1X,'NUMBER OF TYPE1 LABELLING DTS='
1 13/1X,'NUMBER OF NEAREST NEIGHBORS USED=',13/)
0071 WRITE(12,60)
0072 60 F0RMAT(1X,20X,'NEAREST NEIGHBOR DISTANCE/LABEL'//)
0073 C WRITE(12,189) KS1,KS2,KF1,KF2
0074 189 F0RMAT(/1X,'KS1,KS2',6X,12,6X,12/
1 1X,'KF1,KF2',6X,12,6X,12/)
0075 WRITE(12,70)((I),I=KS1,KS2)
0076 F0RMAT(1X,'CLUSTER',5X,12,11X,12,11X,12,11X,12,11X,12/)
0077 12 KK=0
0078 DO 190 J=KF1,KF2
0079 KK=KK+1
0080 WRITE(12,71) (J,((CLUDIS(I,KK),CATNAM(CLULAB(I,KK))),I=KS1,KS2))
0081 71 F0RMAT(/3X,12,2X,5(3X,F7.2,'/',A2))
0082 CONTINUE
0083 190 IF (KF2,EQ,NOSUB) GO TO 35
0084 IF (A,EQ,4,OR,A,EQ,5) GO TO 400
0085 191 WRITE(6,72)
0086 72 F0RMAT(/'S E(X)IT,(R)ETURN,PAGE (F)ORWARD,
1 3R PAGE (S)IDWAYS >')
0087 CALL OUTPUT(7)
0088 READ(6,900) W
0089 F0RMAT(74A1)

```


KNNPRN,FTN

/TP,2LOCKS/WR

```

0088      CALL FRONT(W,74)
0089      IF(W(1).EQ.'X') GO TO 200
0090      IF(W(1).EQ.'R') GO TO 300
0091      IF(W(1).EQ.'F'.OR.W(1).EQ.' ') GO TO 400
0092      IF(W(1).EQ.'S') GO TO 500
0093      400      IF(KF2.EQ.NOSUB) GO TO 80
0094              KF1=KF2+1
0095              KF2=KF2+LINES
0096              IF(KF2.GT.NOSUB)KF2=NOSUB
0097              GO TO 9
0098      35      WRITE(12,79)
0099      79      FORMAT(/1X,'END OF REPORT'/)
0100      IF(A.EQ.4.OR.A.EQ.5) GO TO 192
0101      GO TO 191
0102      80      KF1=1
0103              KF2=LINES
0104              IF(KF2.GT.NOSUB) KF2=NOSUB
0105              GO TO 9
0106      500      IF(KS2.EQ.KNN) GO TO 90
0107              KS1=KS2+1
0108              KS2=KS2+5
0109              IF(KS2.GT.KNN)KS2=KNN
0110              GO TO 11
0111      90      KS1=1
0112              KS2=5
0113              IF(KS2.GT.KNN) KS2=KNN
0114              GO TO 11
0115      192      IF(KS2.EQ.KNN) GO TO 191
0116              KS1=KS2+1
0117              KS2=KS2+5
0118              KF1=1
0119              KF2=5
0120              IF(KF2.GT.NOSUB) KF2=NOSUB
0121              IF(KS2.GT.KNN) KS2=KNN
0122              TITLE=0
0123              GO TO 9
0124      200      A=0
0125              CALL CLOSE(11)
0126              RETURN
0127      300      A=1
0128              CALL CLOSE(11)
0129              RETURN
0130      END

```

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14.5 SUBROUTINE KNMPN

A flow chart for this subroutine is not available.

14.6 SUBROUTINE BRFCU

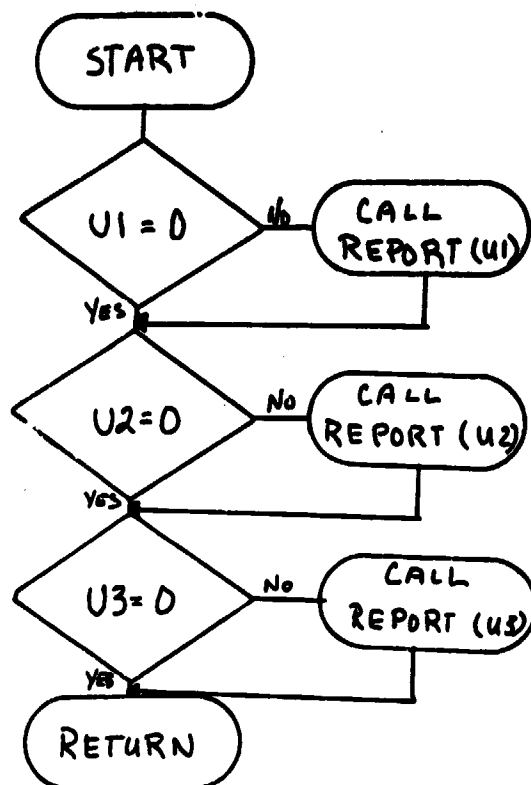
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HEBTRAN IV-PLUS V02-04
REPORT,FTN      /TRIBLOCKS/HR
0001      SUBROUTINE BRFCU(U1,U2,U3)
0002      IMPLICIT INTEGER(A-Z)
0003      IF(U1.EQ.0)GO TO 1
0004      CALL REPORT(U1)
0005      1      CONTINUE
0006      IF(U2.EQ.0)GO TO 2
0007      CALL REPORT(U2)
0008      2      CONTINUE
0009      IF(U3.EQ.0)GO TO 3
0010      CALL REPORT(U3)
0011      3      CONTINUE
0012      RETURN
0013      END
    
```

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14.6 SUBROUTINE BRFCU



14.7 SUBROUTINE REPORT

```

FORTRAN IV-PLUS V02-04      16127150      11-AUG-77      PAGE 3
REPORT,FTN      /TRIBLOCKS/MR
0001      SUBROUTINE REPORT(KU)
0002      IMPLICIT INTEGER(A-Z)
0003      REAL POS,T1,T2,T3
0004      INCLUDE 'SYIC300,31CAMSCOMMON,INC'
0005      INCLUDE 'SYIC300,31CAMSPARAM,INC'
0006      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=50
      1,MAXV=11,NDBTS=209,DLSP=10,DSSKIP=10,MAXACD=6,MAXACC=4,
      2NDBSPWD=6,NDBTWD=10
0007      EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,TX1),(C5,DISKID)
0008      INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)
      C
0009      INTEGER ACDATE,SUBCAT,SURPP,CATKNT,CATTH
0010      BYTE CHNVEC,NCHAN,NPSUB,DTCAT,DBTCLU
0011      COMMON/COM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NCHAN,NPSUB,
      1SUBCAT(MAXSUB),SUBPP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NDB,
      2NDBDU,NDBTWD,DBTCLU(NDBTS),DBTCLU(NDBTS)
      C
0012      INTEGER ADATES,SUNAZ,ANALST,FLDDAY,DBTDAY,PDATE1,TDATE1
0013      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDRM,GRID
0014      BYTE DELFLG,NBACO,SOLGR,SUNEL,NSTART,NTYPE1,ALP,ALPB
0015      BYTE PCTCT,PCTCT2,VAR,VAR0,DLAREL,TYPE
0016      COMMON/COM2/ISEG,DELFLG,NBACO,ADATES(2,MAXACD),SOLGR(MAXACD),
      1SUNEL(MAXACD),SUNAZ(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),
      2DBTDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
      3PDATE3(2),TDATE3(2),N2CAT,CATNAM(MAXCAT),ALP(MAXCAT),ALPB,
      4      PCTCT(MAXCAT),PCTCT2,VAR(MAXCAT),VAR0
      C
0017      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
      1UFLAG4
0018      INTEGER PFLAG,DSKNT
0019      COMMON/COM3/PFLAG,DSKNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1
      1,UFLAG2,UFLAG3,UFLAG4,NEWLAB(MAXSUB)
      C
0020      INTEGER TX1,TY1,TX2,TY2,ACDISP,G,G,DBTWD,DBTARY,GMIN,GMAX,FUL
0021      INTEGER SPWIND,CLAND,CLUWD
0022      COMMON/COM4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I1(4),G(4),
      1G(4),DBTWD(5,NDBTWD),SPWIND(5,NDBSPWD),IMWIND(4),NUMDBT,
      2DBTARY(NDBTS),GMIN,GMAX,FUL(2,7),CLAND(8),CLUWD(4)
0023      COMMON/COM5/DISKID,RANDRM(NDBTS),GRID(NDBTS),DLAREL(NDBTS),
      1TYPE(NDBTS),RECLRC
0024      DIMENSION DATA(72),GN(4)
0025      BYTE TIM(8),DDD
0026      DATA JU,BLK,LLS/7,1,17/
0027      PAGE=1
0028      T2=NLIN
0029      T3=NPIX
0030      T2=T2+T3
0031      CALL TIME(TIM)
0032      FIND(JU)
0033      IS=1
0034      LS=LLS
0035      CALL IDATE(M2,DAY,YR)
0036      IF(KU,NE.6)GO TO 5
0037      CALL CSGDPH(KU,PAGE,BLK,1)
0038      GO TO 6
0039      5      WRITE(KU,112)

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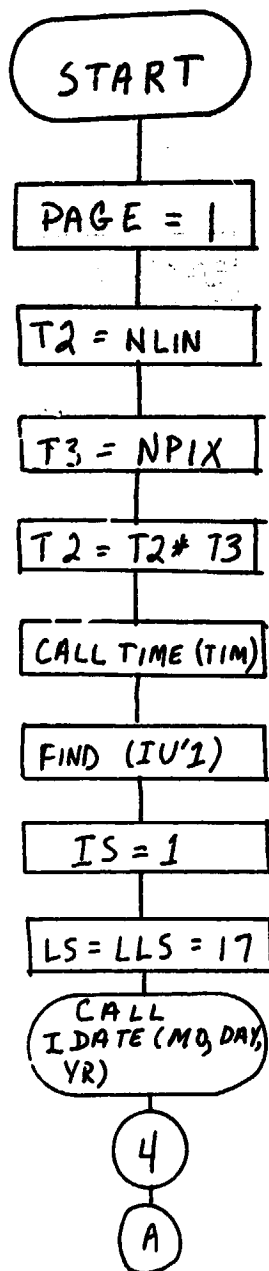

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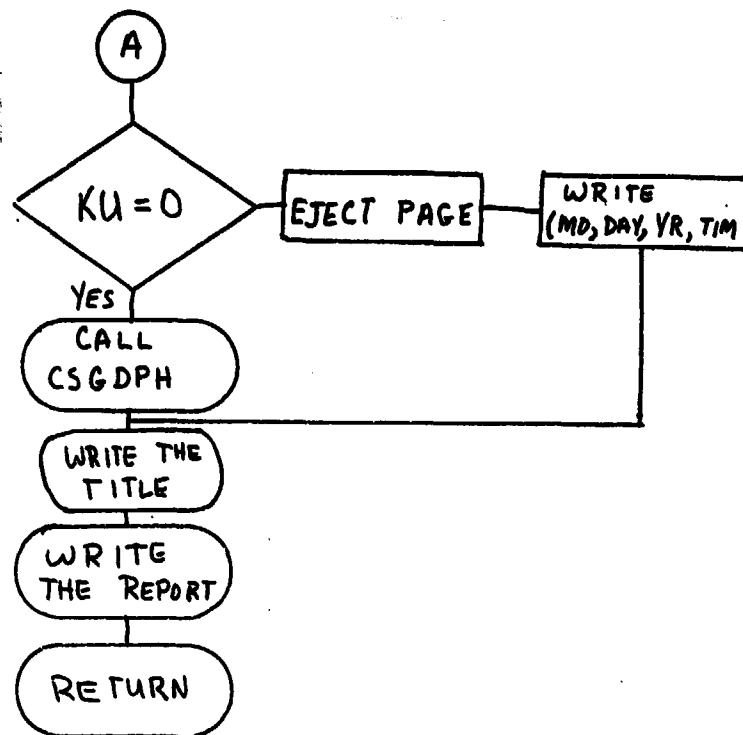
REPORT.FTN      /TR:BLOCKS/HR
0040      WRITE(KU,100)MO,DAY,YR
0041      WRITE(KU,101)TIM
0042      6      WRITE(KU,102)
0043      WRITE(KU,103)ISEG
0044      WRITE(KU,104)((ACDATE(J,K),J=1,2),K=1,MAXACC)
0045      WRITE(KU,105)GMNVEC
0046      WRITE(KU,106)
0047      DO 1 I=15,NBSUB
0048      READ(IU,1,ERR=9,END=10)DATA
0049      DO 2 K=1,MAXACC
0050      ON(K)=0
0051      IF(ACDATE(1,K).EQ.0)GO TO 2
0052      J=K-10-1
0053      ON(K)=DATA(J)=S0ILGR(K)
0054      2      CONTINUE
0055      K=SUBCAT(1)
0056      CAT=CATNAM(K)
0057      T1=SUBPOP(1)
0058      PDS=T1/T2
0059      PDS=PDS-100,0
0060      WRITE(KU,107)I,CAT,SUBPOP(1),PDS,GN
0061      IF(KU.NE.6)GO TO 1
0062      IF(1.LT.LS)GO TO 1
0063      LS=LS+LLS
0064      IF(LS.GT.NOSUB)LS=NOSUB
0065      IS=I+1
0066      WRITE(KU,113)
0067      READ(6,111)DDD
0068      IF(DDD.EQ.'X')GO TO 8
0069      IF(1.GE.NOSUB)GO TO 8
0070      GO TO 4
0071      1      CONTINUE
0072      8      RETURN
0073      9      WRITE(6,108)
0074      GO TO 8
0075      10     WRITE(6,109)
0076      GO TO 8
0077      100    FORMAT(46X,'DATE  ',12,2('/',12)/52X,3('---',X))
0078      101    FORMAT(10'45X,'TIME  ',8A1,/52X,3('---',X))
0079      102    FORMAT(10'24X,'BRIEF CLUSTER REPORT')
0080      103    FORMAT(10', ' CLUSTER REPORT FOR SEGMENT NUMBER ',14/36X,'----')
0081      104    FORMAT(10', ' ACQUISITION DATE(8)  ',4(12,1X,13,6X))
0082      105    FORMAT(10', ' CLUSTERING CHANNELS ',4(12,4X))
0083      106    FORMAT(10',35X,'PERCENTAGE OF',6X,'GREEN',/ ' CLUSTER',4X,'CATEGORY',
1,4X,'POPULATION',7X,'SEGMENT',6X,'NUMBER')
0084      107    FORMAT(10,10X,A2,7X,17,4X,F10,2,3X,4(1X,14))
0085      108    FORMAT(' ERROR READING STATISTICS FILE FOR CLUSTER REPORT')
0086      109    FORMAT(' END OF FILE ON STATISTICS FILE FOR CLUSTER REPORT')
0087      110    FORMAT(' ')
0088      111    FORMAT(A1)
0089      112    FORMAT(11 ')
0090      113    FORMAT('SCR TO CONTINUE,  X      TO ABORT REPORTS > ')
0091      END

```


14.7 SUBROUTINE REPORT

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14.8 SUBROUTINE CLUSNN

FORTRAN IV-PLUS V02-04

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11-AUG-77

PAGE 8

REPORT,FTN

/TRIPL0CKS/HR

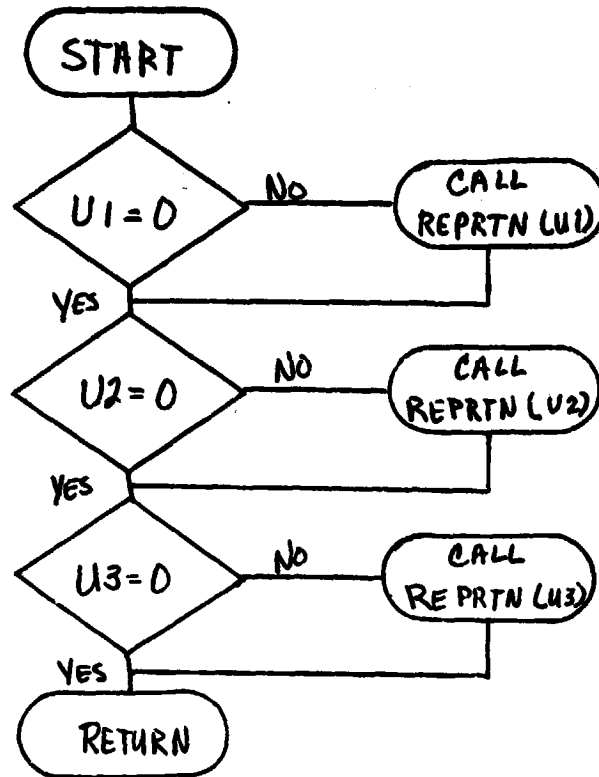
C

NEAREST NEIGHBOR CLUSTER REPORT

```
0001 SUBROUTINE CLUSNN(U1,U2,U3)
0002 IMPLICIT INTEGER(A-Z)
0003 IF(U1.EQ.0)GO TO 1
0004 CALL REPRTN(U1)
0005 1 CONTINUE
0006 IF(U2.EQ.0)GO TO 2
0007 CALL REPRTN(U2)
0008 2 CONTINUE
0009 IF(U3.EQ.0)GO TO 3
0010 CALL REPRTN(U3)
0011 3 CONTINUE
0012 RETURN
0013 END
```

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14.8 SUBROUTINE CLUSNN



14.9 SUBROUTINE REPRTN

```

FORTRAN IV-PLUS V02-04      16:18:03      11-AUG-77      PAGE 10
REPORT,FTN      /TR:BLOCKS/NR
0001      SUBROUTINE REPRTN(KU)
0002      IMPLICIT INTEGER (A-Z)
0003      INCLUDE 'SYI(300,3)CAMSCOMMON,INC'
0004      INCLUDE 'SYI(300,3)CAMSPARAM,INC'
0005      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=50
      1,MAXV=11,NDOTS=209,DISKIP=10,DSSKIP=10,MAXACD=6,MAXACC=4,
      2,NOSPWD=6,NODTND=10
0006      EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,IX1),(C5,DISKID)
0007      INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)
      C*
0008      INTEGER ACDATE,SUBCAT,SURP,P,CATKNT,CATTH
0009      BYTE CHNVEC,NCHAN,NPSUB,DOTCAT,DOTCLU
0010      COMMON/COM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NCHAN,NOSUR,
      1,SURCAT(MAXSUR),SURP,P(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NODP,
      2,NODU,NOTH,DOTCAT(NDOTS),DOTCLU(NDOTS)
      C*
0011      INTEGER ADATES,SUNAZ,ANALST,FLDDAY,DOTDAY,PDATE1,TDATE1
0012      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDON,GRID
0013      BYTE DELFLG,NBACQ,SOLGR,SUNEL,ASTART,NTYPE1,ALP,ALP0
0014      BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE
0015      COMMON/COM2/ISEG,DELFLG,NBACQ,ADATES(2,MAXACD),SOLGR(MAXACD),
      1,SUNEL(MAXACD),SUNAZ(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),
      2,DOTDAY(2),ASTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
      3,PDATE3(2),TDATE3(2),NBACQ,CATNAM(MAXCAT),ALP(MAXCAT),ALP0,
      4      PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0
      C*
0016      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
      1,UFLAG4
0017      INTEGER PFLAG,DSKMNT
0018      COMMON/COM3/PFLAG,DSKMNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1
      1,UFLAG2,UFLAG3,UFLAG4,NEWLAB(MAXSUR)
      C*
0019      INTEGER TX1,TY1,IX1,IX2,IX3,IX4,IX5,IX6,IX7,IX8,IX9,IX10,IX11,IX12,IX13,IX14,IX15,IX16,IX17,IX18,IX19,IX20,IX21,IX22,IX23,IX24,IX25,IX26,IX27,IX28,IX29,IX30,IX31,IX32,IX33,IX34,IX35,IX36,IX37,IX38,IX39,IX40,IX41,IX42,IX43,IX44,IX45,IX46,IX47,IX48,IX49,IX50,IX51,IX52,IX53,IX54,IX55,IX56,IX57,IX58,IX59,IX60,IX61,IX62,IX63,IX64,IX65,IX66,IX67,IX68,IX69,IX70,IX71,IX72,IX73,IX74,IX75,IX76,IX77,IX78,IX79,IX80,IX81,IX82,IX83,IX84,IX85,IX86,IX87,IX88,IX89,IX90,IX91,IX92,IX93,IX94,IX95,IX96,IX97,IX98,IX99,IX100,IX101,IX102,IX103,IX104,IX105,IX106,IX107,IX108,IX109,IX110,IX111,IX112,IX113,IX114,IX115,IX116,IX117,IX118,IX119,IX120,IX121,IX122,IX123,IX124,IX125,IX126,IX127,IX128,IX129,IX130,IX131,IX132,IX133,IX134,IX135,IX136,IX137,IX138,IX139,IX140,IX141,IX142,IX143,IX144,IX145,IX146,IX147,IX148,IX149,IX150,IX151,IX152,IX153,IX154,IX155,IX156,IX157,IX158,IX159,IX160,IX161,IX162,IX163,IX164,IX165,IX166,IX167,IX168,IX169,IX170,IX171,IX172,IX173,IX174,IX175,IX176,IX177,IX178,IX179,IX180,IX181,IX182,IX183,IX184,IX185,IX186,IX187,IX188,IX189,IX190,IX191,IX192,IX193,IX194,IX195,IX196,IX197,IX198,IX199,IX200,IX201,IX202,IX203,IX204,IX205,IX206,IX207,IX208,IX209,IX210,IX211,IX212,IX213,IX214,IX215,IX216,IX217,IX218,IX219,IX220,IX221,IX222,IX223,IX224,IX225,IX226,IX227,IX228,IX229,IX230,IX231,IX232,IX233,IX234,IX235,IX236,IX237,IX238,IX239,IX240,IX241,IX242,IX243,IX244,IX245,IX246,IX247,IX248,IX249,IX250,IX251,IX252,IX253,IX254,IX255,IX256,IX257,IX258,IX259,IX260,IX261,IX262,IX263,IX264,IX265,IX266,IX267,IX268,IX269,IX270,IX271,IX272,IX273,IX274,IX275,IX276,IX277,IX278,IX279,IX280,IX281,IX282,IX283,IX284,IX285,IX286,IX287,IX288,IX289,IX290,IX291,IX292,IX293,IX294,IX295,IX296,IX297,IX298,IX299,IX300,IX301,IX302,IX303,IX304,IX305,IX306,IX307,IX308,IX309,IX310,IX311,IX312,IX313,IX314,IX315,IX316,IX317,IX318,IX319,IX320,IX321,IX322,IX323,IX324,IX325,IX326,IX327,IX328,IX329,IX330,IX331,IX332,IX333,IX334,IX335,IX336,IX337,IX338,IX339,IX340,IX341,IX342,IX343,IX344,IX345,IX346,IX347,IX348,IX349,IX350,IX351,IX352,IX353,IX354,IX355,IX356,IX357,IX358,IX359,IX360,IX361,IX362,IX363,IX364,IX365,IX366,IX367,IX368,IX369,IX370,IX371,IX372,IX373,IX374,IX375,IX376,IX377,IX378,IX379,IX380,IX381,IX382,IX383,IX384,IX385,IX386,IX387,IX388,IX389,IX390,IX391,IX392,IX393,IX394,IX395,IX396,IX397,IX398,IX399,IX400,IX401,IX402,IX403,IX404,IX405,IX406,IX407,IX408,IX409,IX410,IX411,IX412,IX413,IX414,IX415,IX416,IX417,IX418,IX419,IX420,IX421,IX422,IX423,IX424,IX425,IX426,IX427,IX428,IX429,IX430,IX431,IX432,IX433,IX434,IX435,IX436,IX437,IX438,IX439,IX440,IX441,IX442,IX443,IX444,IX445,IX446,IX447,IX448,IX449,IX450,IX451,IX452,IX453,IX454,IX455,IX456,IX457,IX458,IX459,IX460,IX461,IX462,IX463,IX464,IX465,IX466,IX467,IX468,IX469,IX470,IX471,IX472,IX473,IX474,IX475,IX476,IX477,IX478,IX479,IX480,IX481,IX482,IX483,IX484,IX485,IX486,IX487,IX488,IX489,IX490,IX491,IX492,IX493,IX494,IX495,IX496,IX497,IX498,IX499,IX500,IX501,IX502,IX503,IX504,IX505,IX506,IX507,IX508,IX509,IX510,IX511,IX512,IX513,IX514,IX515,IX516,IX517,IX518,IX519,IX520,IX521,IX522,IX523,IX524,IX525,IX526,IX527,IX528,IX529,IX530,IX531,IX532,IX533,IX534,IX535,IX536,IX537,IX538,IX539,IX540,IX541,IX542,IX543,IX544,IX545,IX546,IX547,IX548,IX549,IX550,IX551,IX552,IX553,IX554,IX555,IX556,IX557,IX558,IX559,IX560,IX561,IX562,IX563,IX564,IX565,IX566,IX567,IX568,IX569,IX570,IX571,IX572,IX573,IX574,IX575,IX576,IX577,IX578,IX579,IX580,IX581,IX582,IX583,IX584,IX585,IX586,IX587,IX588,IX589,IX590,IX591,IX592,IX593,IX594,IX595,IX596,IX597,IX598,IX599,IX600,IX601,IX602,IX603,IX604,IX605,IX606,IX607,IX608,IX609,IX610,IX611,IX612,IX613,IX614,IX615,IX616,IX617,IX618,IX619,IX620,IX621,IX622,IX623,IX624,IX625,IX626,IX627,IX628,IX629,IX630,IX631,IX632,IX633,IX634,IX635,IX636,IX637,IX638,IX639,IX640,IX641,IX642,IX643,IX644,IX645,IX646,IX647,IX648,IX649,IX650,IX651,IX652,IX653,IX654,IX655,IX656,IX657,IX658,IX659,IX660,IX661,IX662,IX663,IX664,IX665,IX666,IX667,IX668,IX669,IX670,IX671,IX672,IX673,IX674,IX675,IX676,IX677,IX678,IX679,IX680,IX681,IX682,IX683,IX684,IX685,IX686,IX687,IX688,IX689,IX690,IX691,IX692,IX693,IX694,IX695,IX696,IX697,IX698,IX699,IX700,IX701,IX702,IX703,IX704,IX705,IX706,IX707,IX708,IX709,IX710,IX711,IX712,IX713,IX714,IX715,IX716,IX717,IX718,IX719,IX720,IX721,IX722,IX723,IX724,IX725,IX726,IX727,IX728,IX729,IX730,IX731,IX732,IX733,IX734,IX735,IX736,IX737,IX738,IX739,IX740,IX741,IX742,IX743,IX744,IX745,IX746,IX747,IX748,IX749,IX750,IX751,IX752,IX753,IX754,IX755,IX756,IX757,IX758,IX759,IX760,IX761,IX762,IX763,IX764,IX765,IX766,IX767,IX768,IX769,IX770,IX771,IX772,IX773,IX774,IX775,IX776,IX777,IX778,IX779,IX780,IX781,IX782,IX783,IX784,IX785,IX786,IX787,IX788,IX789,IX790,IX791,IX792,IX793,IX794,IX795,IX796,IX797,IX798,IX799,IX800,IX801,IX802,IX803,IX804,IX805,IX806,IX807,IX808,IX809,IX810,IX811,IX812,IX813,IX814,IX815,IX816,IX817,IX818,IX819,IX820,IX821,IX822,IX823,IX824,IX825,IX826,IX827,IX828,IX829,IX830,IX831,IX832,IX833,IX834,IX835,IX836,IX837,IX838,IX839,IX840,IX841,IX842,IX843,IX844,IX845,IX846,IX847,IX848,IX849,IX850,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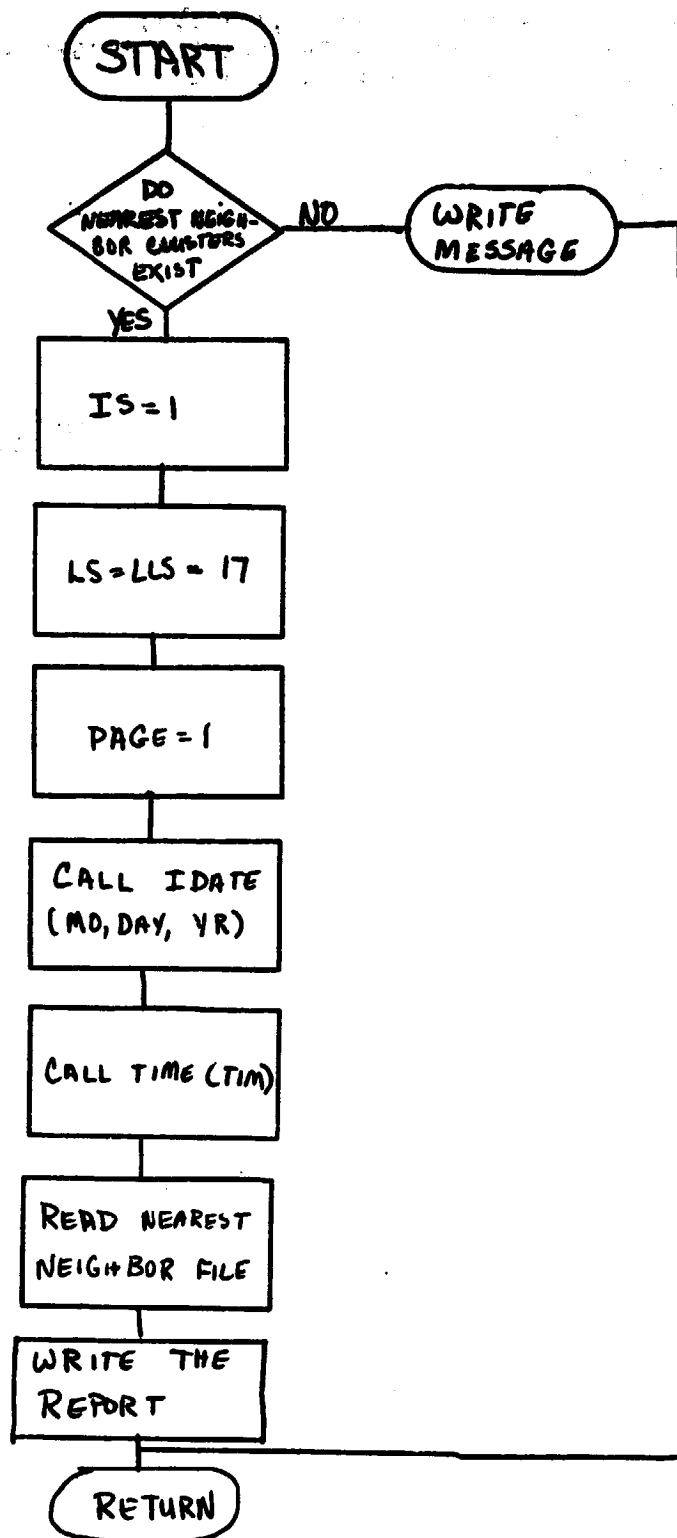
0040      N1=4
0041      1      N1=N1+1*INCR
0042      N2=N1+K*INCR
0043      IF(N1.GT.KNN)GO TO 4
0044      IF(N2.GT.KNN)N2=KNN
0045      6      IF(KU,NE,6)GO TO 7
0046      CALL CSGDPH(6,PAGE,BLK,1)
0047      GO TO 8
0048      7      WRITE(KU,112)
0049      WRITE(KU,100)MO,DAY,YR
0050      WRITE(KU,101)TIM
0051      8      WRITE(KU,102)
0052      WRITE(KU,103)ISEQ
0053      WRITE(KU,104)((ACDATE(J,K),J=1,2),K=1,MAXACC)
0054      WRITE(KU,105)CHNVEC
0055      WRITE(KU,106)
0056      DO 3 I=1S,NDSUB
0057      INR=INR+1
0058      READ(IU,INR)(ARIND(K),KLABEL(K),TDIS(K),K=1,ND)
0059      NN=0
0060      DO 2 N=N1,N2
0061      NN=NN+1
0062      J=KLABEL(N)
0063      LABL(NN)=CATNAM(J)
0064      FA(NN)=TDIS(N)
0065      DOT(NN)=ARIND(N)
0066      2      CONTINUE
0067      WRITE(KU,107)I,(FA(N),DOT(N),LABL(N),N=1,NN)
0068      IF(KU,NE,6)GO TO 3
0069      IF(I.LT.LS)GO TO 3
0070      LS=LS+LLS
0071      IF(LS.GT.NDSUB)LS=NDSUB
0072      IS=I+1
0073      WRITE(KU,113)
0074      READ(6,111)DUM
0075      IF(DUM.EQ.'X')GO TO 4
0076      IF(I.GE.NDSUB)GO TO 4
0077      GO TO 6
0078      3      CONTINUE
0079      WRITE(KU,110)
0080      IF(KU,NE,6)GO TO 1
0081      GO TO 1
0082      4      CLOSE(UNIT=IU,DISPOSE='SAVE')
0083      OPEN(UNIT=IU,NAME='(300,1)CLUSTATS.TMP',TYPE='OLD',
1ACCESS='DIRECT',MAXREC=MAXCAT,RECORDS(2E=36)
0084      5      RETURN
0085      90      WRITE(6,109)NTYPE1,EFLAG4
0086      WRITE(KU,113)
0087      READ(6,111)DUM
0088      IF(DUM.EQ.'X')GO TO 4
0089      GO TO 5
0090      100     FORMAT(46X,'DATE ',12,2(' ','12)/52X,3('=-','X'))
0091      101     FORMAT(101,45X,'TIME ',1A1,52X,3('=-','X'))
0092      102     FORMAT(101,24X,'CLUSTER NEAREST NEIGHBOR REPORT')
0093      103     FORMAT(101,' SEGMENT ID ',14/13X,'-----')
0094      104     FORMAT(101,' ACQUISITION DATE(S) ',4(12,1X,13,6X))

```


6
 FORTRAN IV-PLUS V02-04 16118103 11-AUG-77 PAGE 12
 REPORT,FTN /TR:BLOCKS/WR
 0095 105 FORMAT('0',' CLUSTERING CHANNELS ',4(4I2,4X))
 0096 106 FORMAT('0CLUSTER',10X,'NEAREST NEIGHBOR DISTANCE/DBT GRID NUMBER/
 1LABEL')
 0097 107 FORMAT(13,10X,5(F7.2,'/',13,'/',1A2))
 0098 108 FORMAT('0CANNOT PROVIDE THE NEAREST NEIGHBOR CLUSTER REPORT')/
 1' NTYPE1 = ',13,10X,'EFLAG = '14)
 0099 109 FORMAT(A1)
 0100 110 FORMAT(' ')
 0101 111 FORMAT(A1)
 0102 112 FORMAT('1 ')
 0103 113 FORMAT('3CR TO CONTINUE, X TO ABRT REPORTS > ')
 0104 END

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14.9 SUBROUTINE REPRTN



15. CLUSTER MAP DISPLAY CLUDIS

ORIGINAL PAGE IS
OF POOR QUALITYHFORTTRAN IV-PLUS V02-04
CLUDIS.FTN /TR:BLOCKS/WR

09152192 29-JUN-77

PAGE 1

CLUSTER MAP DISPLAY • DRIVER

SOURCE PROGRAM • [131,140]CLUDIS.FTN

WRITTEN BY • GERALD CHAMPAGNE

THIS PROGRAM CONTROLS CLUSTER MAP DISPLAY
MODULES CONTROLLED BY THIS PROGRAM ARE

- 1 • UNCONDITIONAL MAP DISPLAY
- 2 • CONDITIONAL MAP DISPLAY
- 3 • MIXED CLUSTER MAP DISPLAY
- 4 • REPORTS GENERATOR

```

0001      IMPLICIT INTEGER(A-Z)
0002      INCLUDE '[300,3]CAMSCOMMON.INC'
0003      INCLUDE 'SYI[300,3]CAMSPARAM.INC'
0004      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NP[X]=196,NL[N]=117,MAXFLD=50
      1,MAXV=11,NDBTS=209,DLSK[P]=10,DSBK[P]=10,MAXACD=6,MAXACC=4,
      2NDBSPWD=6,NDBTWD=10
0005      EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,TX1),(C5,DISKID)
0006      INTEGER C1(469),C2(296),C3(71),C4(346),C5(629)
      C*
0007      INTEGER ACDATE,SUBCAT,SUBPOP,CATKNT,CATTH
0008      BYTE CHNVEC,NCHN,NOSUB,DATCAT,DBTCLU
0009      COMMON/COM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NCHN,NOSUB,
      1SUBCAT(MAXSUB),SUBPOP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NDB,
      2NDBU,NDBTWD,DBTCLU(NDBTS)
      C*
0010      INTEGER ADATES,SUNAZ,ANALST,FLDDAY,DBTDAY,PDATE1,TDATE1
0011      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDOM,GRID
0012      BYTE DELFLG,NBACQ,S0ILGR,SUNEL,NSTART,NTYPE1,ALP,ALPB
0013      BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE
0014      COMMON/COM2/ISEG,DELFLG,NBACQ,ADATES(2,MAXACD),S0ILGR(MAXACD),
      1SUNEL(MAXACD),SUNAZ(MAXACD),INDATE(2),ANALST(5),FLDDAY(2),
      2DBTDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
      3PDATE3(2),TDATE3(2),NBACQ,CATNAM(MAXCAT),ALP(MAXCAT),ALPB,
      4PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0
      C*
0015      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
      1UFLAG4
0016      INTEGER PFLAG,DSKMNT
0017      COMMON/COM3/PFLAG,DSKMNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1
      1,UFLAG2,UFLAG3,UFLAG4,NEHLAB(MAXSUB)
      C*
0018      INTEGER TX1,TY1,TX2,TY2,ACD[SP,G,B,D]WIND,DBTARY,GM[N],GMAX,FUL
0019      INTEGER SPWIND,CLAWND,CLUMND
0020      COMMON/COM4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACD[SP(2),111(4),G(4),
      18(4),DTWIND(5,NDBTWD),SPWIND(5,NDBSPWD),IMWIND(4),NUMDBT,
      2DBTARY(NDBTS),GM[N],GMAX,FUL(2,7),CLAWND(8),CLUMND(8)
0021      COMMON/COM5/DISKID,RANDOM(NDBTS),GRID(NDBTS),DLABEL(NDBTS),
      1TYPE(NDBTS),RECLBC
0022      BYTE W(10),ATIME(8)
      C
0023      CALL ATTACH

```



```

FORTRAN IV-PLUS V02.04          09152102    29-JUN-77          PAGE 2
CLUSTIS.FTH      /TR:BLOCKS/HR
0024      I!01
0025      CALL ELAPSE(!!)
0026      CALL OUTPUT(27,12)
0027      CALL DATE(1NN,DD,YY)
0028      CALL TIME(ATIME)
0029      WRITE(6,840) NN,DD,YY,ATIME

      C
      C
      C          OPEN FILES
0030      CALL ASSIGN(7,1(300,13NN,TNP1)
0031      DEFINE FILE 7(MAXSUB,732,U,NREG)
0032      NP1X4,NP1X/4
0033      OPEN (UNIT=0,NAME='C300,13CLUSTERNP,TNP1,TYPE=UNKNOWN',
1 ACCESS='DIRECT',RECORD=25=NP1X4,MAXREC=NLIN)
0034      WRITE(6,800)

      C
      C
      C          CHECK CLUSTER MAP FILE EXISTANCE FLAG
0035      IF(FLAG1.NE.1) CALL SPWARN
0036      IF(FLAG1.NE.1) GO TO 777

      C
      C
      C          LIST AND SOLICIT USER OPTIONS
0037      GO TO 10
0038      5      CALL OUTPUT(27,12)
0039      10      WRITE(6,810)
0040      CALL OUTPUT(7)
0041      READ(4,820)M
0042      CALL FRONT(M,10)
0043      IF(M(1).EQ.'1') CALL UNCDIS
0044      IF(M(1).EQ.'1') GO TO 5
0045      IF(M(1).EQ.'2') CALL GUNDIS
0046      IF(M(1).EQ.'2') GO TO 5
0047      IF(M(1).EQ.'3') CALL MIXDIS
0048      IF(M(1).EQ.'3') GO TO 5
0049      IF(M(1).EQ.'4') CALL REPORT
0050      IF(M(1).EQ.'4') GO TO 5
0051      IF(M(1).NE.'X') WRITE(6,830)
0052      IF(M(1).NE.'X') GO TO 5

      C
      C
      C          DISPLAY ELAPSE TIME
0053      I!02
0054      CALL ELAPSE(!!)

      C
      C
      C          EXIT OR RESTART
0055      20      WRITE(6,870)
0056      CALL OUTPUT(7)
0057      READ(4,820)M
0058      CALL FRONT(M,10)
0059      IF(M(1).EQ.'R') GO TO 10
0060      IF(M(1).EQ.'X') GO TO 777
0061      WRITE(6,830)
0062      GO TO 20

```


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15. CLUSTER MAP DISPLAY CLUDIS

HFORTRAN IV-PLUS V02-04
CLUDIS.FTN /TRI8LOCKS/WR

09152192 29-JUN-77

PAGE 1

CLUSTER MAP DISPLAY = DRIVER

SOURCE PROGRAM = [131,140]CLUDIS.FTN

WRITTEN BY = GERALD CHAMPAONE

THIS PROGRAM CONTROLS CLUSTER MAP DISPLAY
MODULES CONTROLLED BY THIS PROGRAM ARE

- 1 = UNCONDITIONAL MAP DISPLAY
- 2 = CONDITIONAL MAP DISPLAY
- 3 = MIXED CLUSTER MAP DISPLAY
- 4 = REPORTS GENERATOR

```
0001      IMPLICIT INTEGER(A=2)
0002      INCLUDE '[300,3]CAMSCOMMON,INC'
0003      INCLUDE 'SYI[300,3]CAMSPARAM,INC'
0004      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NP[XY[96,NL[N=117,MAXFLD=90
      1,MAXV=11,NDBTS=209,DLISK[P=10,DSK[P=10,MAXACD=6,MAXACC=4,
      2NOSPWD=6,NBDTWD=10
0005      EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,TX1),(C5,DISKID)
0006      INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)
      C=
0007      INTEGER ACDATE,SUBCAT,SUBPOP,CATKNT,CATTH
0008      BYTE CHNVEC,NBCHAN,NBSUB,DOTCAT,DOTCLU
0009      COMMON/COM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NBCHAN,NBSUB,
      1SUBCAT(MAXSUB),SUBPOP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NBD,
      2NBDU,NBTH,DOTCAT(NDBTS),DOTCLU(NDBTS)
      C=
0010      INTEGER ADATES,SUNAZ,ANALST,FLDDAY,DOTDAY,PDATE1,TDATE1
0011      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDOM,GRID
0012      BYTE DELFLG,NBACO,S0ILGR,SUNEL,NSTART,NTYPE1,ALP,ALP0
0013      BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE
0014      COMMON/COM2/ISEG,DELFLG,NBACO,ADATES(2,MAXACD),S0ILGR(MAXACD),
      1SUNEL(MAXACD),SUNAZ(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),
      2DOTDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
      3PDATE3(2),TDATE3(2),NBACAT,CATNAM(MAXCAT),ALP(MAXCAT),ALP0,
      4      PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0
      C=
0015      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
      1UFLAG4
0016      INTEGER PFLAG,DSKMNT
0017      COMMON/COM3/PFLAG,DSKMNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1
      1,UFLAG2,UFLAG3,UFLAG4,NEWLAB(MAXSUB)
      C=
0018      INTEGER TX1,TY1,TX2,TY2,ACD[SP,G,B,DTWIND,DOTARY,GHIN,GMAX,FUL
0019      INTEGER SPWIND,CLAWND,CLUWND
0020      COMMON/COM4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACD[SP(2),I11(4),G(4),
      1B(4),DTWIND(5,NBDTWD),SPWIND(5,NOSPWD),IMWIND(4),NUMDBT,
      2DOTARY(NDBTS),GHIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)
0021      COMMON/COM5/DISKID,RANDOM(NDBTS),GRID(NDBTS),DLABEL(NDBTS),
      1TYPE(NDBTS),RELOC
0022      BYTE W(10),ATIME(8)
      C
0023      CALL ATTACH
```



```

FORTRAN IV-PLUS V02.04      09152182      29-JUN-77      PAGE 2
CLUDIS.FTN      /TRIDBLOCKS/HR
0024      I101
0025      CALL ELAPSE(11)
0026      CALL OUTPUT(27,12)
0027      CALL DATE(MN,DD,YY)
0028      CALL TIME(ATIME)
0029      WRITE(6,840) MN,DD,YY,ATIME

      C
      C
      C
      OPEN FILES

0030      CALL ASSIGN(7,'C300,1JNN.TMP')
0031      DEFINE FILE 7(MAXSUB,732,U,NR00)
0032      NP1X4=NP1X/4
0033      OPEN (UNIT=0,NAME='C300,1JCLUSTERMP.TMP',TYPE='UNKNOWN',
1  ACCESS='DIRECT',RECORDS=128=NP1X4,MAXREC=NLIN)
0034      WRITE(6,800)

      C
      C
      C
      CHECK CLUSTER MAP FILE EXISTANCE FLAG

0035      IF(FLAG1.NE.1) CALL EFWARN
0036      IF(FLAG1.NE.1) GO TO 777

      C
      C
      C
      LIST AND SOLICIT USER OPTIONS

0037      GO TO 10
0038      5      CALL OUTPUT(27,12)
0039      10      WRITE(6,810)
0040      CALL OUTPUT(7)
0041      READ(6,820)W
0042      CALL FRONT(W,10)
0043      IF(W(1).EQ.'1') CALL UNCDIS
0044      IF(W(1).EQ.'1') GO TO 5
0045      IF(W(1).EQ.'2') CALL COND15
0046      IF(W(1).EQ.'2') GO TO 5
0047      IF(W(1).EQ.'3') CALL MIXDIS
0048      IF(W(1).EQ.'3') GO TO 5
0049      IF(W(1).EQ.'4') CALL REPORT
0050      IF(W(1).EQ.'4') GO TO 5
0051      IF(W(1).NE.'X') WRITE(6,830)
0052      IF(W(1).NE.'X') GO TO 5

      C
      C
      C
      DISPLAY ELAPSE TIME

0053      I102
0054      CALL ELAPSE(11)

      C
      C
      C
      EXIT OR RESTART

0055      20      WRITE(6,870)
0056      CALL OUTPUT(7)
0057      READ(6,820)W
0058      CALL FRONT(W,10)
0059      IF(W(1).EQ.'R') GO TO 10
0060      IF(W(1).EQ.'X') GO TO 777
0061      WRITE(6,830)
0062      GO TO 20

      C

```


SAVE GLOBAL COMMON

C
C
C
C

```

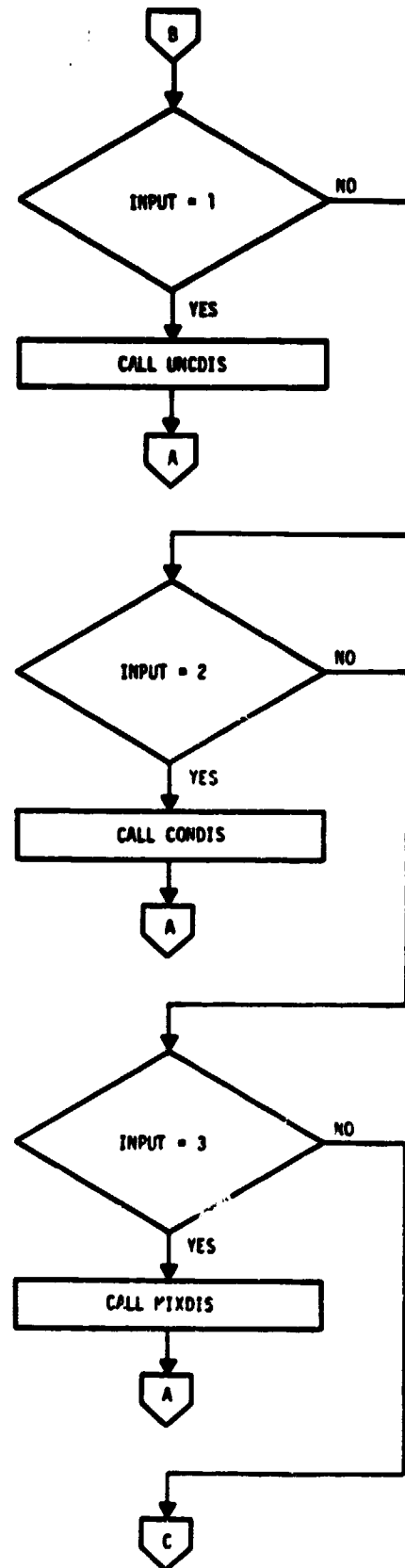
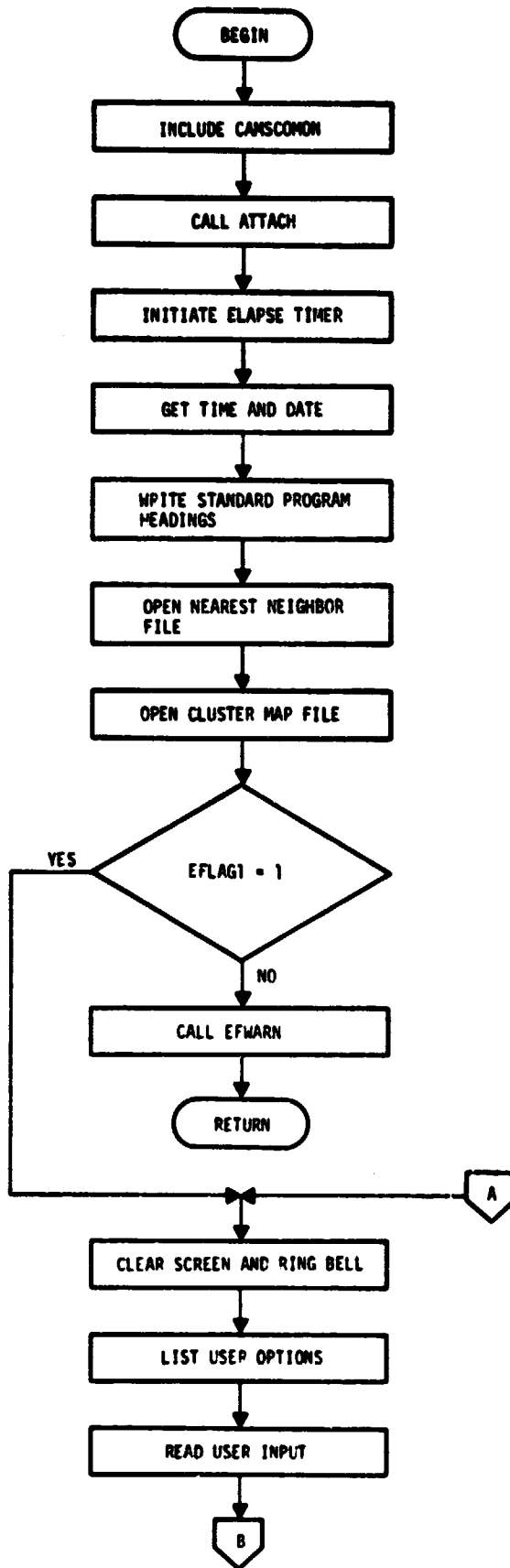
0063 777 CALL DETACH
0064 INCLUDE '[300,3]CAMSAVE,INC'
0065 * OPEN(UNIT=1,NAME='[300,1]GLOBAL.TMP',FORM='UNFORMATTED',
* 1 TYPE='UNKNOWN',ERR=9999)
0066 * WRITE(1)C1
0067 * WRITE(1)C2
0068 * WRITE(1)C3
0069 * WRITE(1)C4
0070 * WRITE(1)C5
0071 * CLOSE(UNIT=1)
0072 * GO TO 9991
0073 * 9999 TYPE 9990
0074 * 9990 FORMAT(1X,'OPEN FAILURE ON [300,1]GLOBAL.TMP--NO RESTART')
0075 * 9991 CONTINUE
0076 CALL SETEF(50)
0077 800 FORMAT(/20X,'CLUSTER MAP DISPLAY/MAY 1977')
0078 810 FORMAT(/,5X,'USER OPTIONS = CLUSTER MAP DISPLAY'/
1 ' 1 = UNCONDITIONAL MAP DISPLAY'/
2 ' 2 = CONDITIONAL MAP DISPLAY'/
3 ' 3 = MIXED CLUSTER MAP DISPLAY'/
4 ' 4 = REPORTS GENERATOR'/
X ' X = EXIT'// 'S ENTER OPTION >')
0079 820 FORMAT(10A1)
0080 830 FORMAT(' *** INPUT ERROR ***')
0081 840 FORMAT(/40X,'DATE: ',12,'/',12,'/',12,
1 /40X,'TIME: ',8A1)
0082 870 FORMAT('S (R)ESTART OR E(X)IT >')
0083 END

```

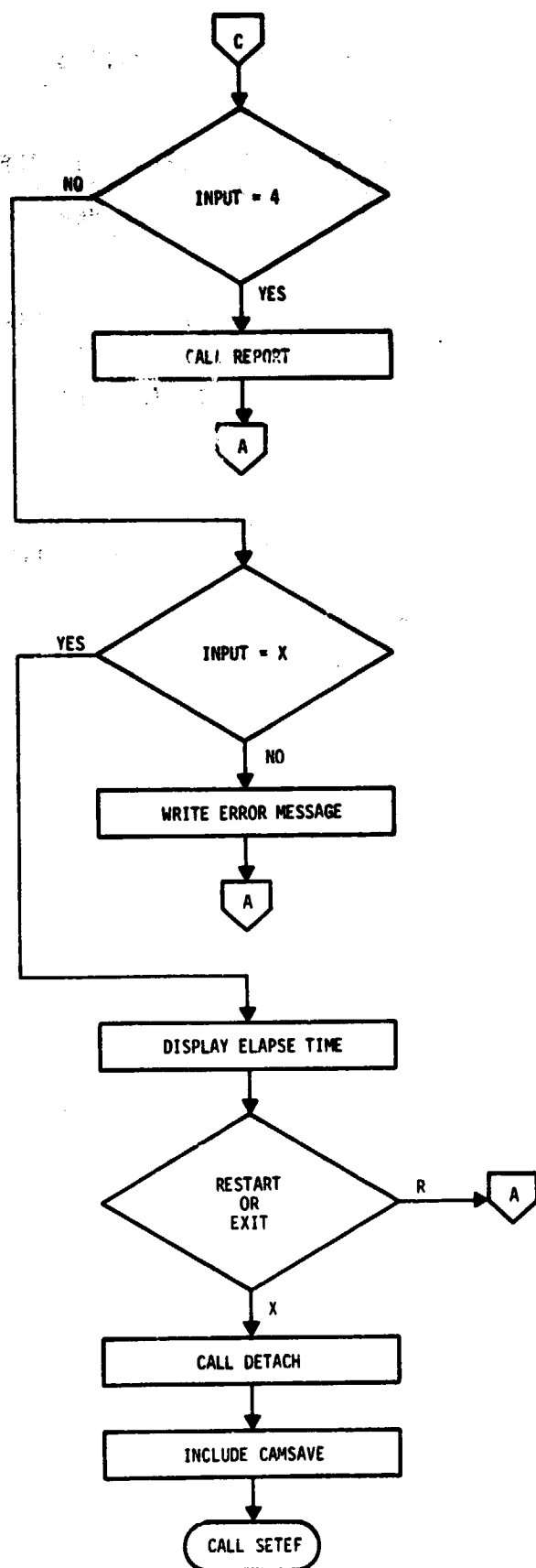
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15. CLUSTER MAP DISPLAY

CLUDIS.FIN (CLUSTER DISPLAY)



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15.1 SUBROUTINE EFWARN

```

FORTRAN IV-PLUS  V02-04
CLUDIS.FTN      /TRIBLOCKS/NR
0001            SUBROUTINE EF

```

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PAGE 4

22222

THIS PROGRAM IS CALLED WHEN 'EPLAG' IN THE COMMON
BLOCK /COMM/ IS NOT SET TO '1' INDICATING THE
CLUSTER MAP DISPLAY FILE IS NOT ON WORKING STORAGE

```

0002      INCLUDE 'C300,3JCAMSCOMON,INC'
0003 *      INCLUDE 'SYIC300,3JCAMSPARAM,INC'
0004 *      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXPLD=30
*      1,MAXV=11,NBOTS=209,DLSKIP=10,DSSKIP=10,MAXACD=6,MAXACC=4,
*      2NBSPWD=6,NBTDWD=10
0005 *      EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,TX1),(C5,DISKID)
0006 *      INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)

```

Co.

```

0007 *      INTEGER ACDATE,SUBCAT,SUBPOP,CATKNT,CATTH
0008 *      BYTE CHNVEC,N0CHAN,N0SUB,D0TCAT,D0TCLU
0009 *      COMMON/COM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),N0CHAN,N0SUB,
*      1SUBCAT(MAXSUB),SUBPOP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),N0D0,
*      2N0DU,N0TH,D0TCAT(N0DTS),D0TCLU(N0DTS)

```

Co.

```

0010 *      INTEGER ADATES,SUNAZ,ANALST,FLDDAY,DBTDAY,PDATE1,TDATE1
0011 *      INTEGER PDATE2,TDATE2,PDATES,TDATES,CATNAM,DISKID,RANDOM,GRID
0012 *      BYTE DELFLG,NBACQ,S0ILGR,SUNEL,NSTART,NTYPE1,ALP,ALPB
0013 *      BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE
0014 *      COMMON/COM2/ISEG,DEFLG,NBACQ,ADATES(2,MAXACD),S0ILGR(MAXACD),
*      1SUNEL(MAXACD),SUNAZ(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),
*      2DBTDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
*      3PDATES(2),TDATES(2),NBACAT,CATNAM(MAXCAT),ALP(MAXCAT),ALPB,
*      4      PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0

```

60

```

0015 *      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
*      1UFLAG4
0016 *      INTEGER PFLAG,DSKMNT
0017 *      COMMON/COM3/PFLAG,DSKMNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1
*      1,UFLAG2,UFLAG3,UFLAG4,NEWLAMB(MAXSUB)

```

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```

0018 *      INTEGER TX1,TY1, TX2,TY2,ACDISP,G,B,DTWIND,DOTARY,GMIN,GMAX,FUL
0019 *      INTEGER SPWIND,CLAWND,CLUWND
0020 *      COMMON/COM4/TX1,TY1, TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I1(4),G(4),
*      10(4),DTWIND(3,NODTWD),SPWIND(3,NOSPWD),IMWIND(4),NUMDOT,
*      2DOTARY(NDOTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)
0021 *      COMMON/COM5/DISKID,RANDOM(NDOTS),GRID(NDOTS),DLABEL(NDOTS),
*      1TYPE(NDOTS),RECLCG

```

```
0022      BYTE W(10)
0023      WRITE(6,800)
0024      READ(6,810) W
0025      CALL FRONT(W,10)
0026      IF(W(1).NE.'Y') RETURN
```

CCC

IF THE USER DESIRES, THE REPORT GENERATOR IS CALLED

```

0027      CALL REPORT
0028      RETURN
0029      800      FORMAT(//20X,'... WARNING ...'//,
1              'CLUSTER MAP DISPLAY FILE IS NOT ON WORKING STORAGE'//,
2              'WOULD YOU LIKE REPORTS ? (Y)ES OR (N)O >')

```


FORTRAN IV-PLUS V02-04
CLUDIS,FTN /TRIBLOCKS/MR
0030 010 FORMAT(10A1)
0031 END

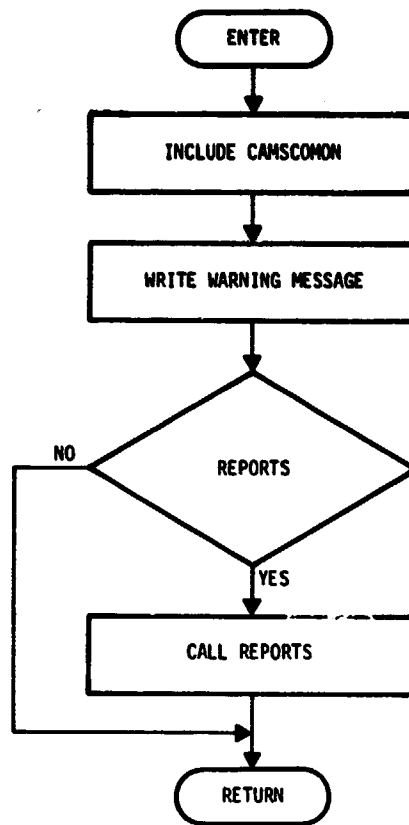
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PAGE 7

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15.2 SUBROUTINE UNCDIS

HFORTRAN IV-PLUS V02-04
UNCDIS.FTN /TR:BLOCKS/HR
0001 SUBROUTINE UNCDIS

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PAGE 1

C
C
C
C
C
C
C
C
C
C
C

UNCONDITIONAL CLUSTER MAP DISPLAY

SOURCE PROGRAM = (131,140)UNCDIS.FTN

WRITTEN BY = GERALD CHAMPAGNE

THIS PROGRAM DISPLAYS UNCONDITIONAL CLUSTERS
OR CATEGORIES DETERMINED BY THE USER

```

0002      IMPLICIT INTEGER(A-Z)
0003      INCLUDE 'C300,3)CAMSCOMMON.INC'
0004      INCLUDE 'SVI(C300,3)CAMSPARAM.INC'
0005      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NP1X=196,NLIN=117,MAXFLD=50
      1,MAXV=11,NDBTS=209,DLSP=10,DSSKIP=10,MAXACD=6,MAXACC=4,
      2NOSPD=6,NODTND=10
0006      EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,IX1),(C5,DISKID)
0007      INTEGER C1(469),C2(296),C3(71),C4(348),C5(629)
      C=
0008      INTEGER ACDATE,SUBCAT,SURPOP,CATKNT,CATTH
0009      BYTE CHNVEC,NCHAN,NOSUB,DOTCAT,DOTCLU
0010      COMMON/COM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NCHAN,NOSUB,
      1SUBCAT(MAXSUB),SURPOP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NOD0,
      2NODU,NBTH,DOTCAT(NDBTS),DOTCLU(NDBTS)
      C=
0011      INTEGER ADATES,SUNAZ,ANALST,FLDDAY,DOTDAY,PDATE1,TDATE1
0012      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDOM,GRID
0013      BYTE DELFLG,NBACQ,S0ILGR,SUNEL,NSTART,NTYPE1,ALP,ALPB
0014      BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE
0015      COMMON/COM2/ISEG,DELFLG,NBACQ,ADATES(2,MAXACD),S0ILGR(MAXACD),
      1SUNEL(MAXACD),SUNAZ(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),
      2DOTDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
      3PDATE3(2),TDATE3(2),NBACQ,CATNAM(MAXCAT),ALP(MAXCAT),ALPB,
      4PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0
      C=
0016      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
      1UFLAG4
0017      INTEGER PFLAG,DSKMNT
0018      COMMON/COM3/PFLAG,DSKMNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,
      1UFLAG2,UFLAG3,UFLAG4,NEWLAB(MAXSUB)
      C=
0019      INTEGER TX1,TY1,TX2,TY2,ACDISP,G,B,DTWIND,DOTARY,GMIN,GMAX,FUL
0020      INTEGER SPWIND,CLAWND,CLUWND
0021      COMMON/COM4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I11(4),G(4),
      1B(4),DTWIND(5,NODTND),SPWIND(5,NOSPD),IHWIND(4),NUMDOT,
      2DOTARY(NDBTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)
0022      COMMON/COM5/DISKID,RANDOM(NDBTS),GRID(NDBTS),DLABEL(NDBTS),
      1TYPE(NDBTS),RELOC
0023      COMMON /LOCOM2/CHASK
0024      COMMON /ZOOM/IC(4),TC(4),IX,IY,IX1,IY1,IX2,IY2,IX3,IY3,IX4,IY4,IX5,IY5,IX6,IY6,IX7,IY7,IX8,IY8,IX9,IY9,IX10,IY10,IX11,IY11,IX12,IY12,IX13,IY13,IX14,IY14,IX15,IY15,IX16,IY16,IX17,IY17,IX18,IY18,IX19,IY19,IX20,IY20,IX21,IY21,IX22,IY22,IX23,IY23,IX24,IY24,IX25,IY25,IX26,IY26,IX27,IY27,IX28,IY28,IX29,IY29,IX30,IY30,IX31,IY31,IX32,IY32,IX33,IY33,IX34,IY34,IX35,IY35,IX36,IY36,IX37,IY37,IX38,IY38,IX39,IY39,IX40,IY40,IX41,IY41,IX42,IY42,IX43,IY43,IX44,IY44,IX45,IY45,IX46,IY46,IX47,IY47,IX48,IY48,IX49,IY49,IX50,IY50,IX51,IY51,IX52,IY52,IX53,IY53,IX54,IY54,IX55,IY55,IX56,IY56,IX57,IY57,IX58,IY58,IX59,IY59,IX60,IY60,IX61,IY61,IX62,IY62,IX63,IY63,IX64,IY64,IX65,IY65,IX66,IY66,IX67,IY67,IX68,IY68,IX69,IY69,IX70,IY70,IX71,IY71,IX72,IY72,IX73,IY73,IX74,IY74,IX75,IY75,IX76,IY76,IX77,IY77,IX78,IY78,IX79,IY79,IX80,IY80,IX81,IY81,IX82,IY82,IX83,IY83,IX84,IY84,IX85,IY85,IX86,IY86,IX87,IY87,IX88,IY88,IX89,IY89,IX90,IY90,IX91,IY91,IX92,IY92,IX93,IY93,IX94,IY94,IX95,IY95,IX96,IY96,IX97,IY97,IX98,IY98,IX99,IY99,IX100,IY100,IX101,IY101,IX102,IY102,IX103,IY103,IX104,IY104,IX105,IY105,IX106,IY106,IX107,IY107,IX108,IY108,IX109,IY109,IX110,IY110,IX111,IY111,IX112,IY112,IX113,IY113,IX114,IY114,IX115,IY115,IX116,IY116,IX117,IY117,IX118,IY118,IX119,IY119,IX120,IY120,IX121,IY121,IX122,IY122,IX123,IY123,IX124,IY124,IX125,IY125,IX126,IY126,IX127,IY127,IX128,IY128,IX129,IY129,IX130,IY130,IX131,IY131,IX132,IY132,IX133,IY133,IX134,IY134,IX135,IY135,IX136,IY136,IX137,IY137,IX138,IY138,IX139,IY139,IX140,IY140,IX141,IY141,IX142,IY142,IX143,IY143,IX144,IY144,IX145,IY145,IX146,IY146,IX147,IY147,IX148,IY148,IX149,IY149,IX150,IY150,IX151,IY151,IX152,IY152,IX153,IY153,IX154,IY154,IX155,IY155,IX156,IY156,IX157,IY157,IX158,IY158,IX159,IY159,IX160,IY160,IX161,IY161,IX162,IY162,IX163,IY163,IX164,IY164,IX165,IY165,IX166,IY166,IX167,IY167,IX168,IY168,IX169,IY169,IX170,IY170,IX171,IY171,IX172,IY172,IX173,IY173,IX174,IY174,IX175,IY175,IX176,IY176,IX177,IY177,IX178,IY178,IX179,IY179,IX180,IY180,IX181,IY181,IX182,IY182,IX183,IY183,IX184,IY184,IX185,IY185,IX186,IY186,IX187,IY187,IX188,IY188,IX189,IY189,IX190,IY190,IX191,IY191,IX192,IY192,IX193,IY193,IX194,IY194,IX195,IY195,IX196,IY196,IX197,IY197,IX198,IY198,IX199,IY199,IX200,IY200,IX201,IY201,IX202,IY202,IX203,IY203,IX204,IY204,IX205,IY205,IX206,IY206,IX207,IY207,IX208,IY208,IX209,IY209,IX210,IY210,IX211,IY211,IX212,IY212,IX213,IY213,IX214,IY214,IX215,IY215,IX216,IY216,IX217,IY217,IX218,IY218,IX219,IY219,IX220,IY220,IX221,IY221,IX222,IY222,IX223,IY223,IX224,IY224,IX225,IY225,IX226,IY226,IX227,IY227,IX228,IY228,IX229,IY229,IX230,IY230,IX231,IY231,IX232,IY232,IX233,IY233,IX234,IY234,IX235,IY235,IX236,IY236,IX237,IY237,IX238,IY238,IX239,IY239,IX240,IY240,IX241,IY241,IX242,IY242,IX243,IY243,IX244,IY244,IX245,IY245,IX246,IY246,IX247,IY247,IX248,IY248,IX249,IY249,IX250,IY250,IX251,IY251,IX252,IY252,IX253,IY253,IX254,IY254,IX255,IY255,IX256,IY256,IX257,IY257,IX258,IY258,IX259,IY259,IX260,IY260,IX261,IY261,IX262,IY262,IX263,IY263,IX264,IY264,IX265,IY265,IX266,IY266,IX267,IY267,IX268,IY268,IX269,IY269,IX270,IY270,IX271,IY271,IX272,IY272,IX273,IY273,IX274,IY274,IX275,IY275,IX276,IY276,IX277,IY277,IX278,IY278,IX279,IY279,IX280,IY280,IX281,IY281,IX282,IY282,IX283,IY283,IX284,IY284,IX285,IY285,IX286,IY286,IX287,IY287,IX288,IY288,IX289,IY289,IX290,IY290,IX291,IY291,IX292,IY292,IX293,IY293,IX294,IY294,IX295,IY295,IX296,IY296,IX297,IY297,IX298,IY298,IX299,IY299,IX300,IY300,IX301,IY301,IX302,IY302,IX303,IY303,IX304,IY304,IX305,IY305,IX306,IY306,IX307,IY307,IX308,IY308,IX309,IY309,IX310,IY310,IX311,IY311,IX312,IY312,IX313,IY313,IX314,IY314,IX315,IY315,IX316,IY316,IX317,IY317,IX318,IY318,IX319,IY319,IX320,IY320,IX321,IY321,IX322,IY322,IX323,IY323,IX324,IY324,IX325,IY325,IX326,IY326,IX327,IY327,IX328,IY328,IX329,IY329,IX330,IY330,IX331,IY331,IX332,IY332,IX333,IY333,IX334,IY334,IX335,IY335,IX336,IY336,IX337,IY337,IX338,IY338,IX339,IY339,IX340,IY340,IX341,IY341,IX342,IY342,IX343,IY343,IX344,IY344,IX345,IY345,IX346,IY346,IX347,IY347,IX348,IY348,IX349,IY349,IX350,IY350,IX351,IY351,IX352,IY352,IX353,IY353,IX354,IY354,IX355,IY355,IX356,IY356,IX357,IY357,IX358,IY358,IX359,IY359,IX360,IY360,IX361,IY361,IX362,IY362,IX363,IY363,IX364,IY364,IX365,IY365,IX366,IY366,IX367,IY367,IX368,IY368,IX369,IY369,IX370,IY370,IX371,IY371,IX372,IY372,IX373,IY373,IX374,IY374,IX375,IY375,IX376,IY376,IX377,IY377,IX378,IY378,IX379,IY379,IX380,IY380,IX381,IY381,IX382,IY382,IX383,IY383,IX384,IY384,IX385,IY385,IX386,IY386,IX387,IY387,IX388,IY388,IX389,IY389,IX390,IY390,IX391,IY391,IX392,IY392,IX393,IY393,IX394,IY394,IX395,IY395,IX396,IY396,IX397,IY397,IX398,IY398,IX399,IY399,IX400,IY400,IX401,IY401,IX402,IY402,IX403,IY403,IX404,IY404,IX405,IY405,IX406,IY406,IX407,IY407,IX408,IY408,IX409,IY409,IX410,IY410,IX411,IY411,IX412,IY412,IX413,IY413,IX414,IY414,IX415,IY415,IX416,IY416,IX417,IY417,IX418,IY418,IX419,IY419,IX420,IY420,IX421,IY421,IX422,IY422,IX423,IY423,IX424,IY424,IX425,IY425,IX426,IY426,IX427,IY427,IX428,IY428,IX429,IY429,IX430,IY430,IX431,IY431,IX432,IY432,IX433,IY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```


CALL TIME (ATIME)

CONTINUE

```
IF(1SET, EQ, 0) GO TO 777
```

```
IF(20, EQ, 1) GO TO 10
```

CONTINUE

4 - CLUSTER LABEL CHANGE

IF (H(1) - EQ - 1) CALL CLABEL

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 UNCDIS,FTN /TR:BLOCKS/WR
 0062 IF(W(1).EQ.'4') GO TO 30
 0063 IF(W(1).EQ.'X') GO TO 60
 0064 WRITE(6,880)
 0065 GO TO 30
 0066 40 CONTINUE

C
C
C

WRITE CLUSTER ASSIGNMENTS TO THEME

0067 CALL THRITE

C
C

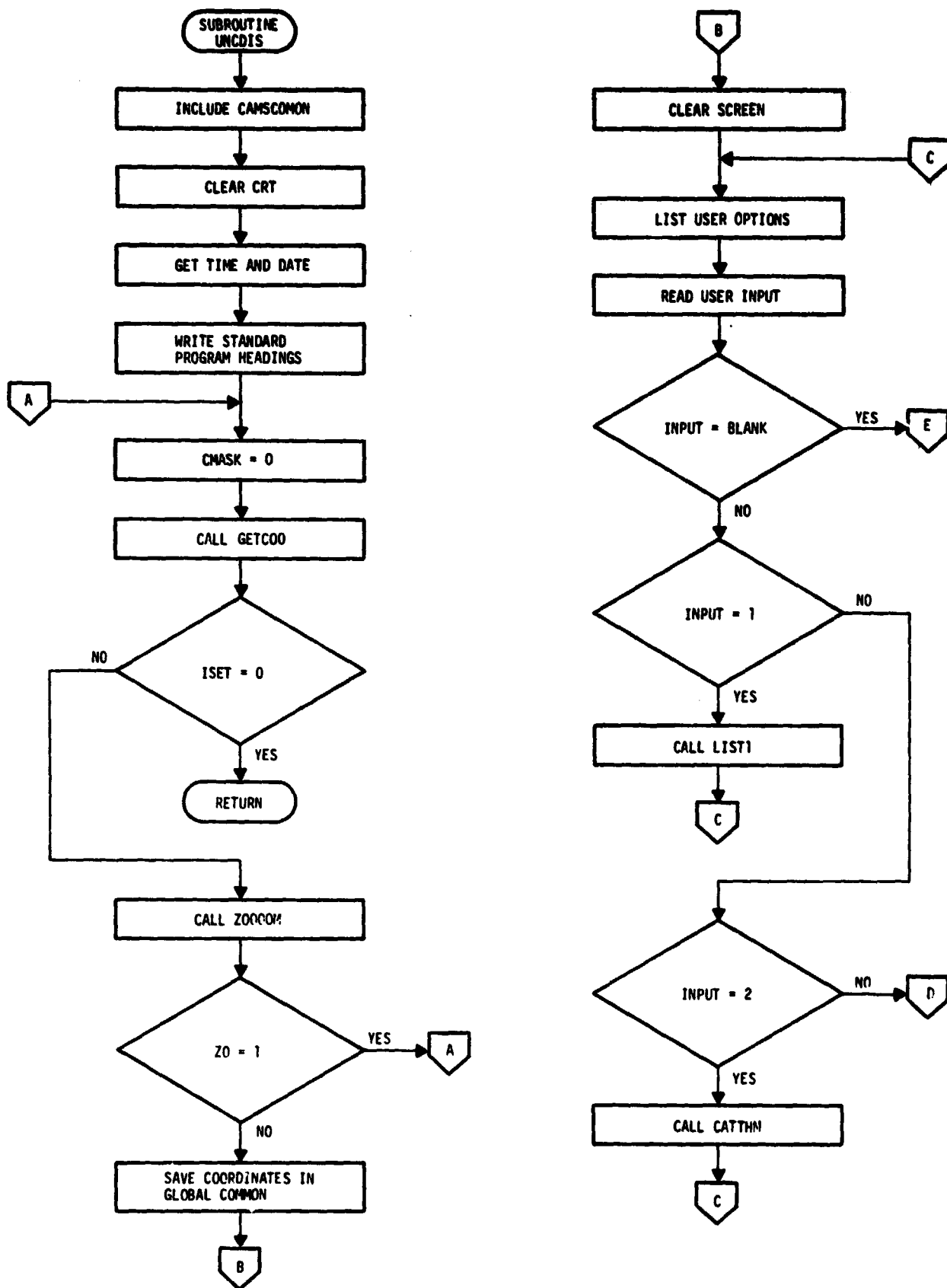
EXIT OR RESTART OPTION

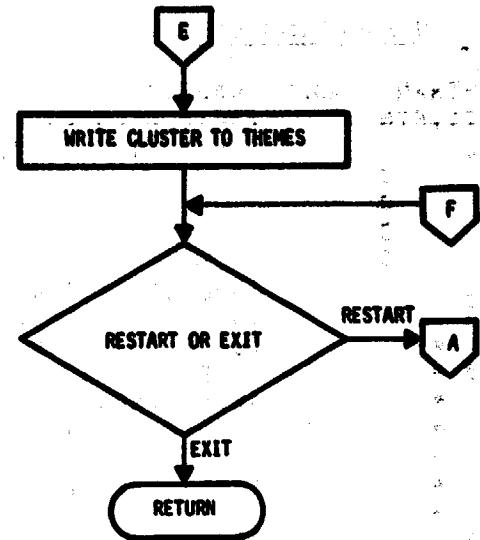
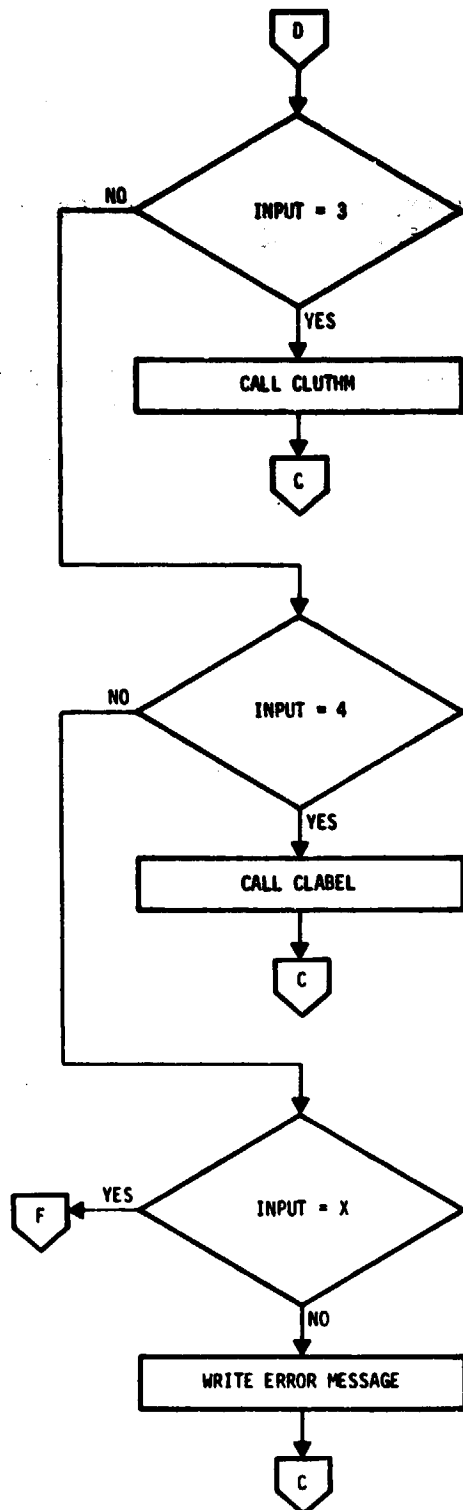
0068 60 WRITE(6,870)
 0069 CALL OUTPUT(7)
 0070 READ(6,800) W
 0071 CALL FRONT(W,74)
 0072 IF(W(1).EQ.'R') GO TO 10
 0073 IF(W(1).EQ.'X') GO TO 777
 0074 WRITE(6,880)
 0075 GO TO 60
 0076 777 CONTINUE
 0077 RETURN
 0078 800 FORMAT(74A1)
 0079 810 FORMAT(/10X,'UNCONDITIONAL CLUSTER MAP DISPLAY/MAY 1977')
 0080 820 FORMAT(/40X,'DATE' ',12,'/',12,'/',12,
 /40X,'TIME' ',8A1)

ORIGINAL PAGE IS
OF POOR QUALITY

0081 830 1 FORMAT(/' USER OPTIONS ARE',/
 1 ' 1 = LIST OF CLUSTERS AND CATEGORIES',/
 2 ' 2 = CATEGORY TO THEME ASSIGNMENT',/
 3 ' 3 = CLUSTER TO THEME ASSIGNMENT',/
 4 ' 4 = CLUSTER LABEL CHANGES',/
 5 ' X = EXIT',/
 6 ' CR ..., FOR CONTINUE',/
 7 'S ENTER OPTION >')
 0082 840 FORMAT(/' USER OPTIONS ARE',/
 1 ' 1 = LIST, 2 = CAT TO THM, 3 = CLU TO THM, 4 = LAB CHANGE',/
 2 ' E(X)IT, CR',/
 3 'S ENTER OPTION >')
 0083 870 FORMAT('S (R)ESTART OR E(X)IT >')
 0084 880 FORMAT(' INPUT ERROR ..., TRY AGAIN')
 0085 END

15.2 SUBROUTINE UNCDIS





U

PAGE 1



SECRET

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60

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CCC

CALCULATE THE NUMBER OF LINES NEEDED FOR DISPLAY

CCC

DISPLAY ON T11

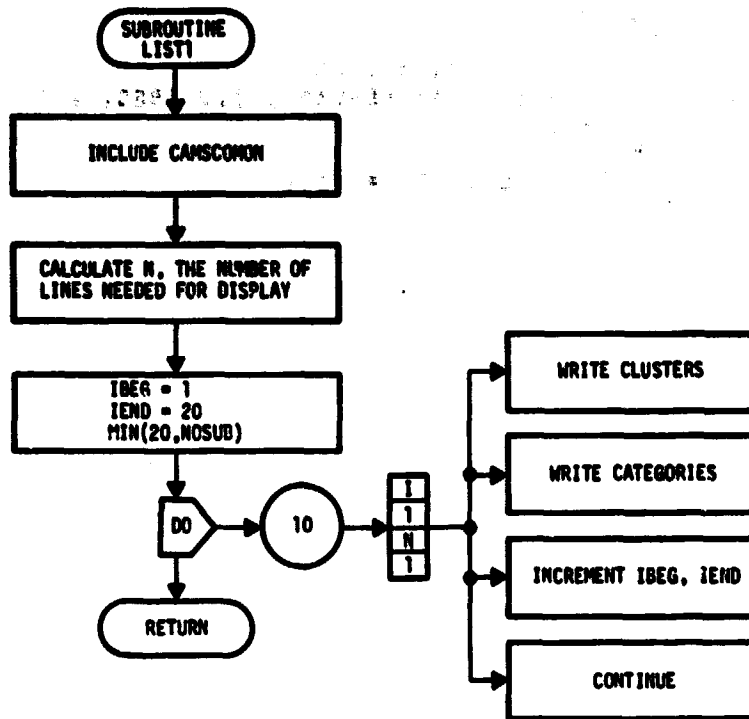


134

FORTRAN IV-PLUS V02-04 09153138 29-JUN-77 PAGE 2
 LIST1.FTN /TR:BLOCKS/HR
 0030 DO 10 I=1,N
 0031 WRITE(6,800) (J,J=IBEG,IEND)
 0032 WRITE(6,810) (CATNAM(NEWLAQ(J)),J=IBEG,IEND)
 0033 IBEG=IBEG+20
 0034 IEND=IEND+20
 0035 IF(IEND.GT.NBSUB) IEND=NBSUB
 0036 10 CONTINUE
 0037 RETURN
 0038 800 FORMAT(/' CLUSTER ',20I3)
 0039 810 FORMAT(' CATEGORY ',20(1X,A2)/)
 0040 END

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 OF POOR QUALITY

15.3 SUBROUTINE LIST1



C

PAGE 1



ORIGINAL PAGE IS
OF POOR QUALITY

GET THE THEME NUMBER AND CATEGORY NUMBER FOR
THEME DISPLAY OF THE CATEGORY

0036 READ(6,800)W
0037 CALL FRONT(W,74)

CHECK FOR DEFAULT

0038 IF(W(1).EQ.' ') CALL DEFALT(CHASK)
0039 IF(W(1).EQ.' ') GO TO 777
0040 IPT=0
0041 HDLAB(1)=W(1)
0042 IPT=1
0043 IF(W(2).EQ.' ' .OR. W(2).EQ.' ') HDLAB(2)= ' '
0044 IF(W(2).EQ.' ' .OR. W(2).EQ.' ') GO TO 12
0045 HDLAB(2)=W(2)
0046 IPT=2
0047 CONTINUE

CHECK IF VALID CATEGORY LABEL

0048 DO 14 I=1,NBCAT
0049 IF(CATNAM(I).EQ.' LABEL') GO TO 16
0050 CONTINUE
0051 WRITE(6,850)
0052 GO TO 10
0053 CNUM=I
0054 CALL INTFF(IPT,W,74,THMNUM)

CHECK IF VALID THEME NUMBER

0055 IF(THMNUM.LE.0 .OR. THMNUM.GE.1) GO TO 20
0056 WRITE(6,860)
0057 GO TO 10
0058 WRITE(6,820) REPADD

ADD OR REPLACE

0059 READ(6,800) W
0060 CALL FRONT(W,74)
0061 IF(W(1).EQ.' ') W(1)=REPADD
0062 IF(W(1).EQ.' A') GO TO 40
0063 IF(W(1).NE.' R') WRITE(6,830)
0064 IF(W(1).NE.' R') GO TO 20

ERASE WINDOW AND CLEAR THEME ON CHASK

0065 CALL BLKTHM(IC(1),IC(2),IC(3),IC(4),THMNUM,IS,ISB)
0066 DO 30 I=1,NBSUB
0067 IF(NEHLAB(I).NE.' CNUM') GO TO 30
0068 H=CHASK(I)
0069 CHASK(I)=IAND(W,ICM(MASK(THMNUM)))
0070 CONTINUE

POSITIVE OR NEGATIVE DISPLAY


```

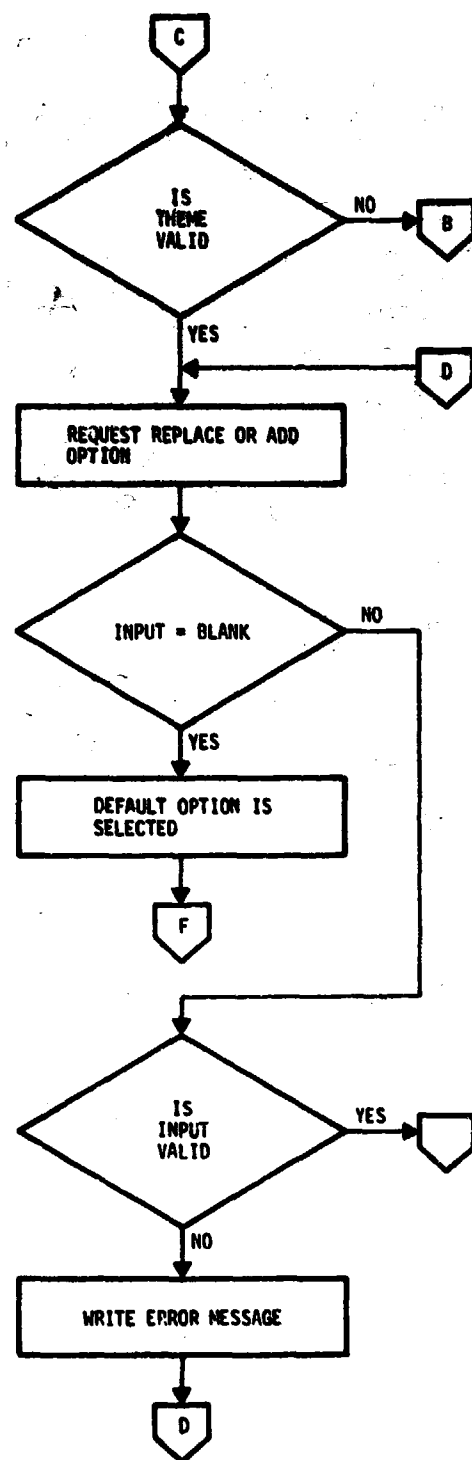
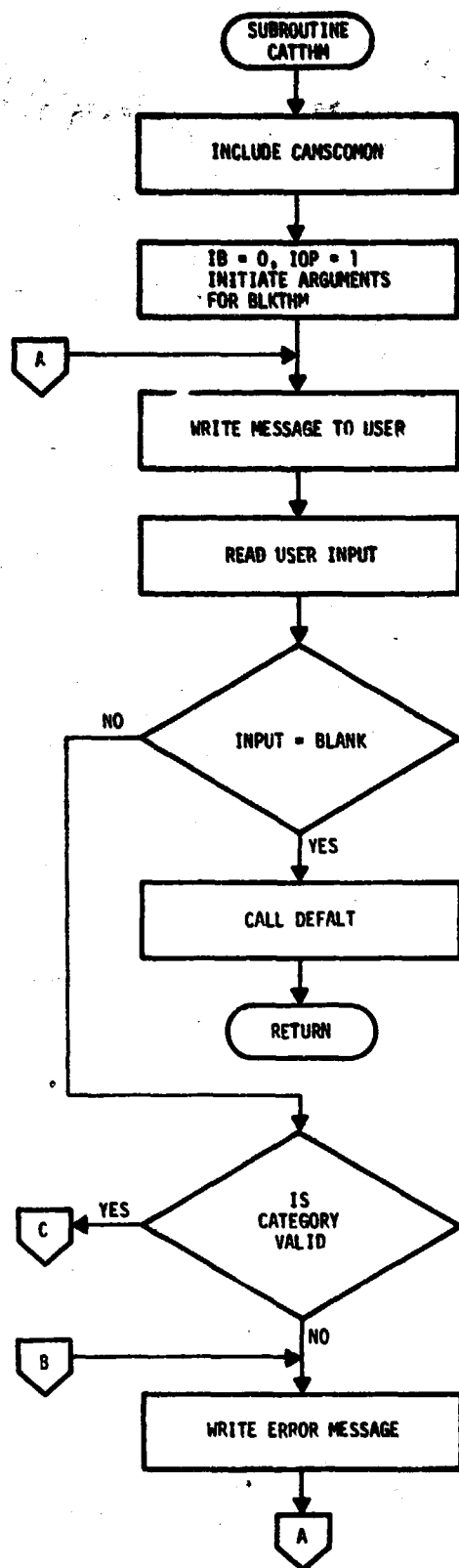
FORTRAN IV-PLUS V02-04      09153151      29-JUN-77      PAGE 3
CATTHM,FTN      /TR:BLOCKS/WR
0071      40      REPADD=W(1)
0072      45      CONTINUE
0073      WRITE(6,840) POSNEG
0074      READ(6,800) W
0075      CALL FRONT(W,74)
0076      IF(W(1).EQ.' ') W(1)=POSNEG
0077      IF(W(1).EQ.'P') GO TO 50
0078      IF(W(1).EQ.'N') GO TO 50
0079      WRITE(6,830)
0080      GO TO 45
0081      50      CONTINUE
0082      POSNEG=W(1)

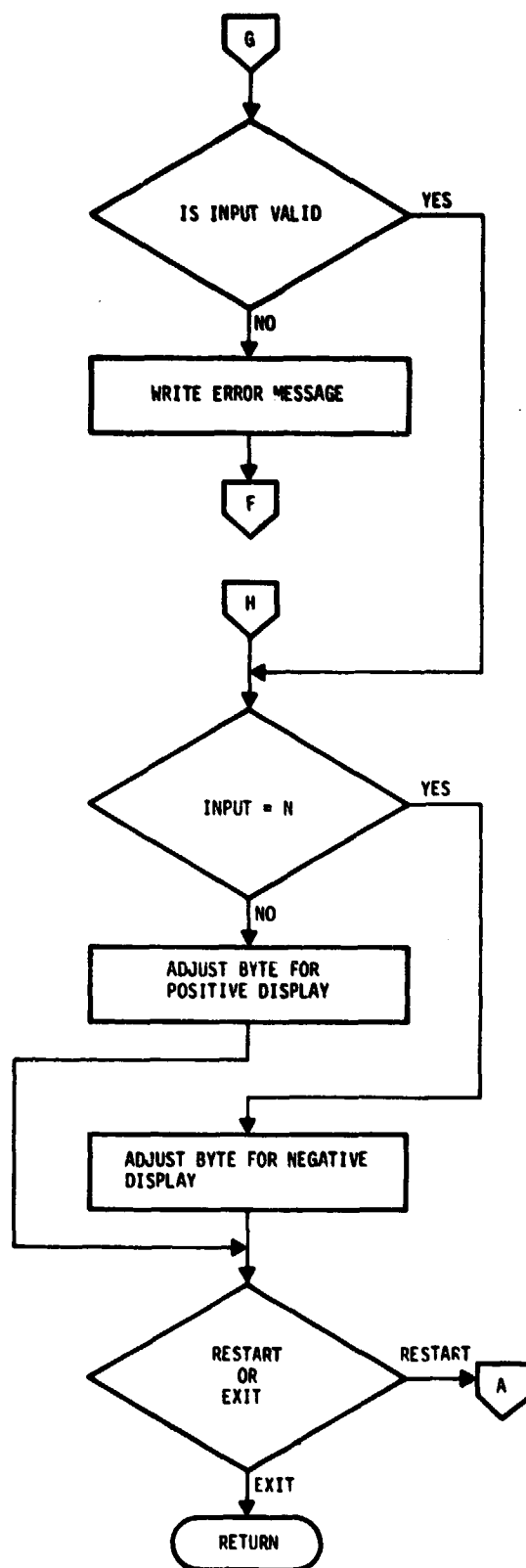
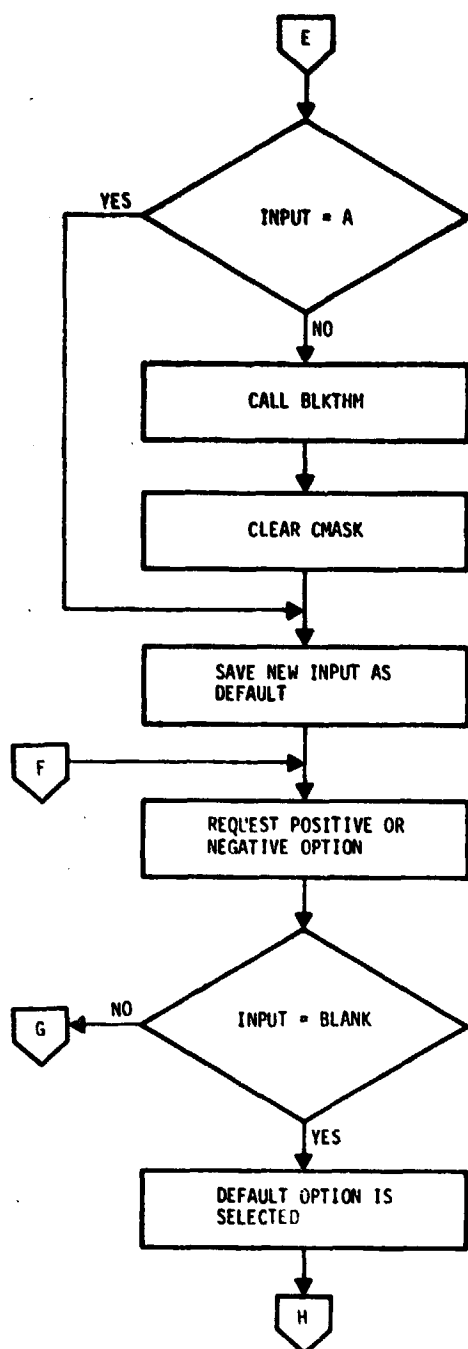
      C
      C
      C
      C
                                DO BIT MANIPULATION OF CMASK
0083      IF(W(1).EQ.'N') GO TO 70
0084      DO 60 I=1,NOSUB
0085      IF(NEWLAB(I).NE.CNUM) GO TO 60
0086      M=CMASK(I)
0087      CMASK(I)=IOR(M,MASK(THMNUM))
0088      60      CONTINUE
0089      GO TO 90
0090      70      CONTINUE
0091      DO 80 I=1,NOSUB
0092      IF(NEWLAB(I).EQ.CNUM) GO TO 80
0093      M=CMASK(I)
0094      CMASK(I)=IOR(M,MASK(THMNUM))
0095      80      CONTINUE
0096      90      CONTINUE

      C
      C
      C
                                CHECK IF MORE ASSIGNMENTS DESIRED
0097      WRITE(6,870)
0098      CALL OUTPUT(7)
0099      READ(6,800) W
0100      CALL FRONT(W,74)
0101      IF(W(1).EQ.' ') GO TO 777
0102      GO TO 10
0103      777      CONTINUE
0104      RETURN
0105      800      FORMAT(74A1)
0106      805      FORMAT(' BACK UP AND EXIT NOT ALLOWED')
0107      810      FORMAT('S ENTER CATEGORY AND THEME NUMBER >')
0108      820      FORMAT('S (A)DD OR (R)EPLACE',2X,A1,' >')
0109      830      FORMAT('/// *** INPUT ERROR ***')
0110      840      FORMAT('S (P)OSITIVE OR (N)EGATIVE',2X,A1,' >')
0111      850      FORMAT(' CATEGORY NAME INCORRECT - TRY AGAIN')
0112      860      FORMAT(' THEME NUMBER INCORRECT - TRY AGAIN')
0113      870      FORMAT('S ADDITIONAL ASSIGNMENTS ? (Y)ES OR CR >')
0114      END

```


15.4 SUBROUTINE CATTHM





15.5 SUBROUTINE CLUTHM

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09154114

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PAGE 1

CLUTHM,FTN

/TR:BLOCKS/WR

0001

SUBROUTINE CLUTHM

C
C
C

THIS SUBROUTINE ASSIGNS CLUSTERS TO THEMES

0002

IMPLICIT INTEGER (A-Z)

0003

INCLUDE '(300,3)CAMSCOMON,INC'

0004 *

INCLUDE 'SYI(300,3)CAMSPARAM,INC'

0005 *

PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=50,
1,MAXV=11,NDBTS=209,DLISKIP=10,DSSKIP=10,MAXACD=6,MAXACC=6,
2NDBSPWD=6,NDBTWD=10

0006 *

EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,TX1),(C5,DISKID)

0007 *

INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)

C*

0008 *

INTEGER ACDATE,SUBCAT,SUBPOP,CATKNT,CATTH

0009 *

BYTE CHNVEC,NBCHAN,NBSUB,DBTCAT,DBTCLU

0010 *

COMMON/COM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NBCHAN,NBSUB,
1SUBCAT(MAXSUB),SUBPOP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NDBO,
2NDBU,NBTH,DBTCAT(NDBTS),DBTCLU(NDBTS)

C*

0011 *

INTEGER ADATES,SUNAZ,ANALST,FLDDAY,DBTDAY,PDATE1,TDATE1

0012 *

INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDOM,GRID

0013 *

BYTE DELFLG,NBACC,SBILGR,SUNEL,NSTART,NTYPE1,ALP,ALPB

0014 *

BYTE PCTCT,PCTCTB,VAR,VARB,DLABEL,TYPE

0015 *

COMMON/COM2/ISEG,DEFLG,NBACC,ADATES(2,MAXACD),SBILGR(MAXACD),
1SUNEL(MAXACD),SUNAZ(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),
2DBTDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
3PDATE3(2),TDATE3(2),NBACC,CATNAM(MAXCAT),ALP(MAXCAT),ALPB,
4 PCTCT(MAXCAT),PCTCTB,VAR(MAXCAT),VARB

C*

0016 *

INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,

0017 *

1UFLAG4

0018 *

INTEGER PFLAG,DSKMNT

0019 *

COMMON/COM3/PFLAG,DSKMNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,
1,UFLAG2,UFLAG3,UFLAG4,NEWLAB(MAXSUB)

C*

0019 *

INTEGER TX1,TY1,TX2,TY2,ACDISP,G,B,DTWIND,DBTARY,GMIN,GMAX,FUL

0020 *

INTEGER SPWIND,CLAWND,CLUWND

0021 *

COMMON/COM4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I1(4),G(4),
1B(4),DTWIND(5,NDBTWD),SPWIND(5,NBSPWD),INWIND(4),NUMDBT,
2DBTARY(NDBTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)

0022 *

COMMON/COM5/DISKID,RANDOM(NDBTS),GRID(NDBTS),DLABEL(NDBTS),
1TYPE(NDBTS),RELOC

0023

COMMON /LOCOM2/CHASK

0024

COMMON /ZOOM/IC(4),TC(4),IX,IY,TX,TY,MX,MY

0025

DIMENSION IX(512),IY(512),TX(512),TY(512)

0026

BYTE W(74)

0027

BYTE PBSNEG,REPADD

0028

DIMENSION MASK(8),CHASK(60)

0029

DATA MASK/'001','002','004','010','020','040','100','200'/

0030

DATA PBSNEG,REPADD /'P','R'/

0031

IB=0

0032

IBP=1

0033

WRITE(6,810)

10
C
C
C

GET THE THEME NUMBER AND CLUSTER NUMBERS
FOR THEME DISPLAY OF THE CLUSTER(S).

144


```

0034      FLAG=0
0035      READ(6,800)W
0036      CALL FRONT(W,74)
0037      IF(W(1),EQ,'X') GO TO 777
0038      IF(W(1),EQ,' ') GO TO 777
0039      IPT=0
0040      CALL INTFF (IPT,W,74,CLUNUM)

```

C
C
C

CHECK IF CLUSTER NUMBER IS VALID

```

0041      IF(CLUNUM,GT,NOSUB,OR,CLUNUM,LT,1) WRITE(6,850)
0042      IF(CLUNUM,GT,NOSUB,OR,CLUNUM,LT,1) GO TO 10
0043      CALL INTFF (IPT,W,74,THMNUM)
0044      IF(FLAG,EQ,0) GO TO 15
0045      IF(THMNUM,NE,0) GO TO 15
0046      CMASK(MDNUM)=IOR(M,MASK(MDTHM))
0047      GO TO 10

```

C
C
C

CHECK IF THEME NUMBER IS VALID

```

0048      15      IF(THMNUM,GT,8,OR,THMNUM,LT,1) WRITE(6,860)
0049      IF(THMNUM,GT,8,OR,THMNUM,LT,1) GO TO 10
0050      20      WRITE(6,820) REPADD

```

C
C
C

ADD OR REPLACE

```

0051      READ(6,800)W
0052      CALL FRONT(W,74)
0053      IF(W(1),EQ,' ') W(1)=REPADD
0054      IF(W(1),EQ,'A') GO TO 40
0055      IF(W(1),NE,'R') WRITE(6,830)
0056      IF(W(1),NE,'R') GO TO 20

```

C
C
C

ERASE WINDOW AND CLEAR THEME ON CMASK

```

0057      CALL BLKTHM(IC(1),IC(2),IC(3),IC(4),THMNUM,IB,IBP)

```

C
C
C

POSITIVE OR NEGATIVE DISPLAY

```

0058      40      REPADD=W(1)
0059      45      CONTINUE
0060      WRITE(6,840) POSNEG
0061      READ(6,800) W
0062      CALL FRONT(W,74)
0063      IF(W(1),EQ,' ') W(1)=POSNEG
0064      IF(W(1),EQ,'P') GO TO 50
0065      IF(W(1),EQ,'N') GO TO 50
0066      WRITE(6,830)
0067      GO TO 45
0068      50      CONTINUE
0069      POSNEG=W(1)

```

C
C
C

DO BIT MANIPULATION OF CMASK

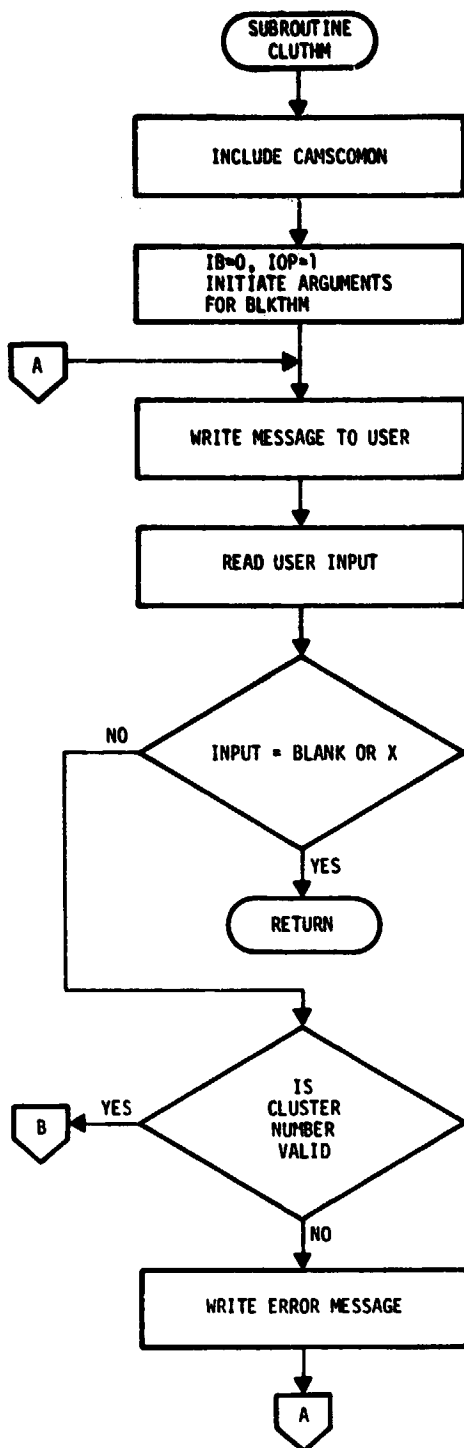
```

0070      M=CMASK(CLUNUM)

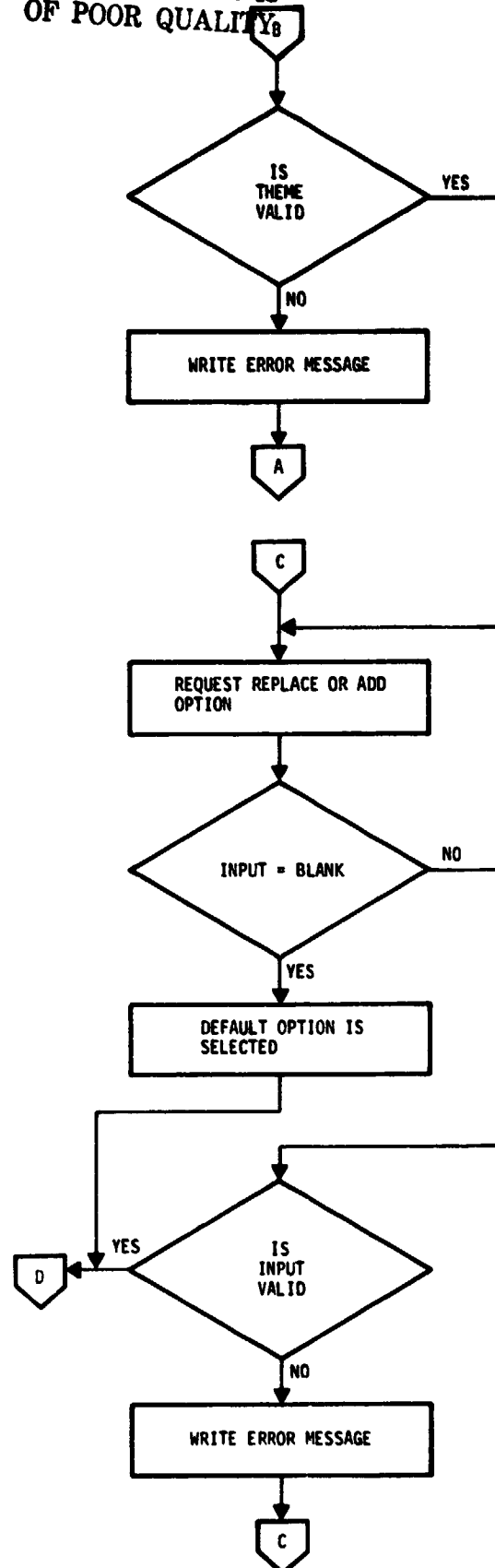
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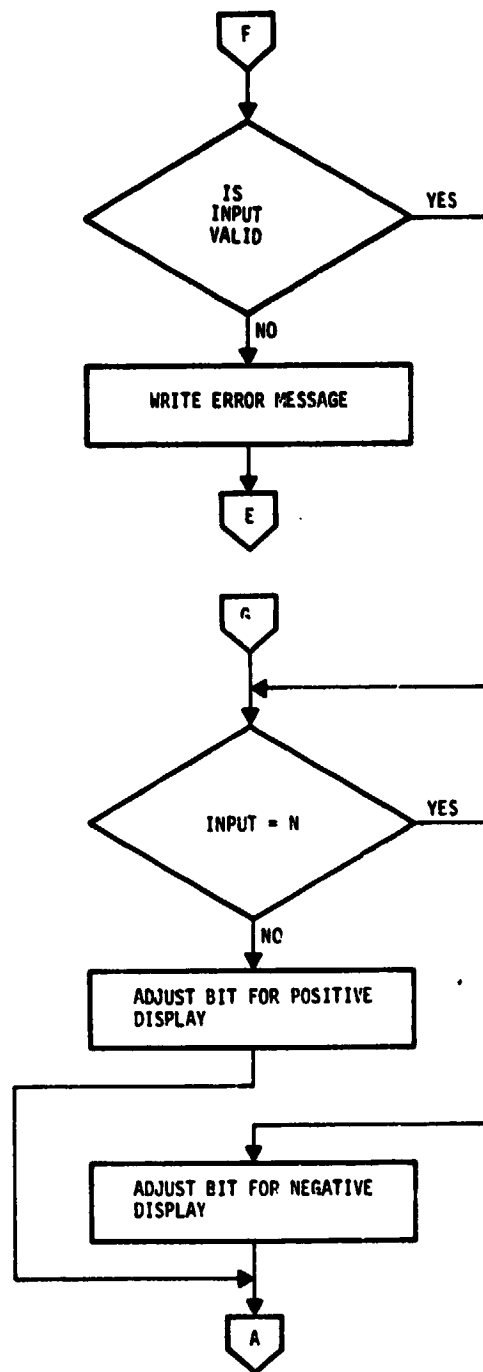
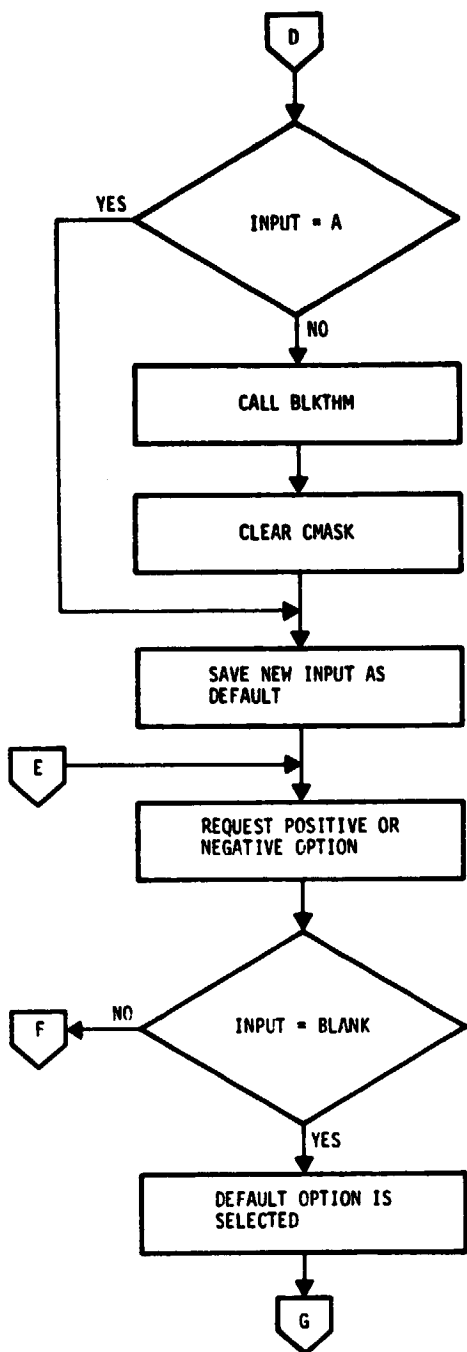

FORTRAN IV-PLUS V02-04 09154114 29-JUN-77 PAGE 3
 CLUTHM,FTN /TR,BLOCKS/HR
 0071 IF(W(1),EQ,'P') CHASK(CLUNUM)=IOR(M,MASK(THMNUM))
 0072 MDTHM=THMNUM
 0073 IF(W(1),EQ,'P') GO TO 70
 0074 DO 60 I=1,NBSUB
 0075 IF(I,EQ,CLUNUM) GO TO 60
 0076 M=CHASK(I)
 0077 CHASK(I)=IOR(M,MASK(THMNUM))
 0078 60 CONTINUE
 0079 70 CONTINUE
 0080 FLAG=1
 0081 GO TO 10
 0082 777 CONTINUE
 0083 RETURN
 0084 800 FORMAT(74A1)
 0085 810 FORMAT('S ENTER CLUSTER NUMBER AND THEME NUMBER >')
 0086 820 FORMAT('S (A)DD OR (R)EPLACE',2X,A1,' >')
 0087 830 FORMAT('/// *** INPUT ERROR ***///')
 0088 840 FORMAT('S (P)OSITIVE OR (N)EGATIVE',2X,A1,' >')
 0089 850 FORMAT(' CLUSTER NUMBER INCORRECT - TRY AGAIN')
 0090 860 FORMAT(' THEME NUMBER INCORRECT - TRY AGAIN')
 0091 END

15.5 SUBROUTINE CLUTHM



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15.6 SUBROUTINE TWRITE

MFORTAN IV=PLUS V02=04
 TWRITE,FTN /TRIBLOCKS/WR

09154132

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PAGE 1

C
C
C
C

THIS PROGRAM WRITES THE ASSIGNED
 CLUSTERS TO THEMES

```

0001 SUBROUTINE TWRITE
0002 IMPLICIT INTEGER (A-Z)
0003 DIMENSION CHASK(40),IX(512),IY(512),TX(512),TY(512)
0004 DIMENSION PIX(256,8)
0005 BYTE Y(4096), BUF(196)
0006 EQUIVALENCE (Y(1),PIX(1,1))
0007 COMMON /ZOOM/IC(4),TC(4),IX,IY,TX,TY,MX,MY
0008 COMMON /LCCM2/CHASK
0009 IF(MY.GT.128) GO TO 5
0010 MY1=16
0011 N=MY/MY1
0012 IF(MY=N*MY1,NE.0) N=N+1
0013 GO TO 8
0014 5 CONTINUE
0015 N=8
0016 MY1=MY/N
0017 IF(MY=N*MY1,NE.0) MY1=MY1+1
0018 8 CONTINUE
0019 DO 60 LL=1,MY1
0020 L=LL
0021 DO 10 I=1,N

```

C
C
C

READ DATA FROM CHANNEL FIVE FOR PROCESSING

```

0022 CALL IRV(5,IY(L),PIX(1,1))
0023 L=L + MY1
0024 IF(L.GT.MY) GO TO 15
0025 10 CONTINUE
0026 15 IF(N.LE.4) CALL WAIT
0027 L=LL
0028 P512 = 0
0029 DO 40 I=1,N

```

C
C
C

READ CLUSTER MAP FILE

```

0030 READ(8,TY(L)) BUF

```

C
C
C
C

PROCESS THE DATA FROM CLUSTER MAP FILE
 MANIPULATE THE THEME DISPLAY ACCORDINGLY

```

0031 DO 30 LINE=1,MX
0032 IN = IX(LINE) + P512 + 1
0033 M = IRYE(IN-1,Y)
0034 K = TX(LINE) + 1
0035 CLUSTR = IRYE(K,BUF)
0036 IF(CLUSTR.EQ.0) GO TO 30
0037 Y(IN) = IOR(M,CHASK(CLUSTR))
0038 CONTINUE
0039 L = L + MY1
0040 IF (L.GT.MY) GO TO 45

```

C
C

INCREMENT POINTER FOR Y(MY)

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TWRITE,FTN /TRIBLOCKS/WR

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PAGE 2

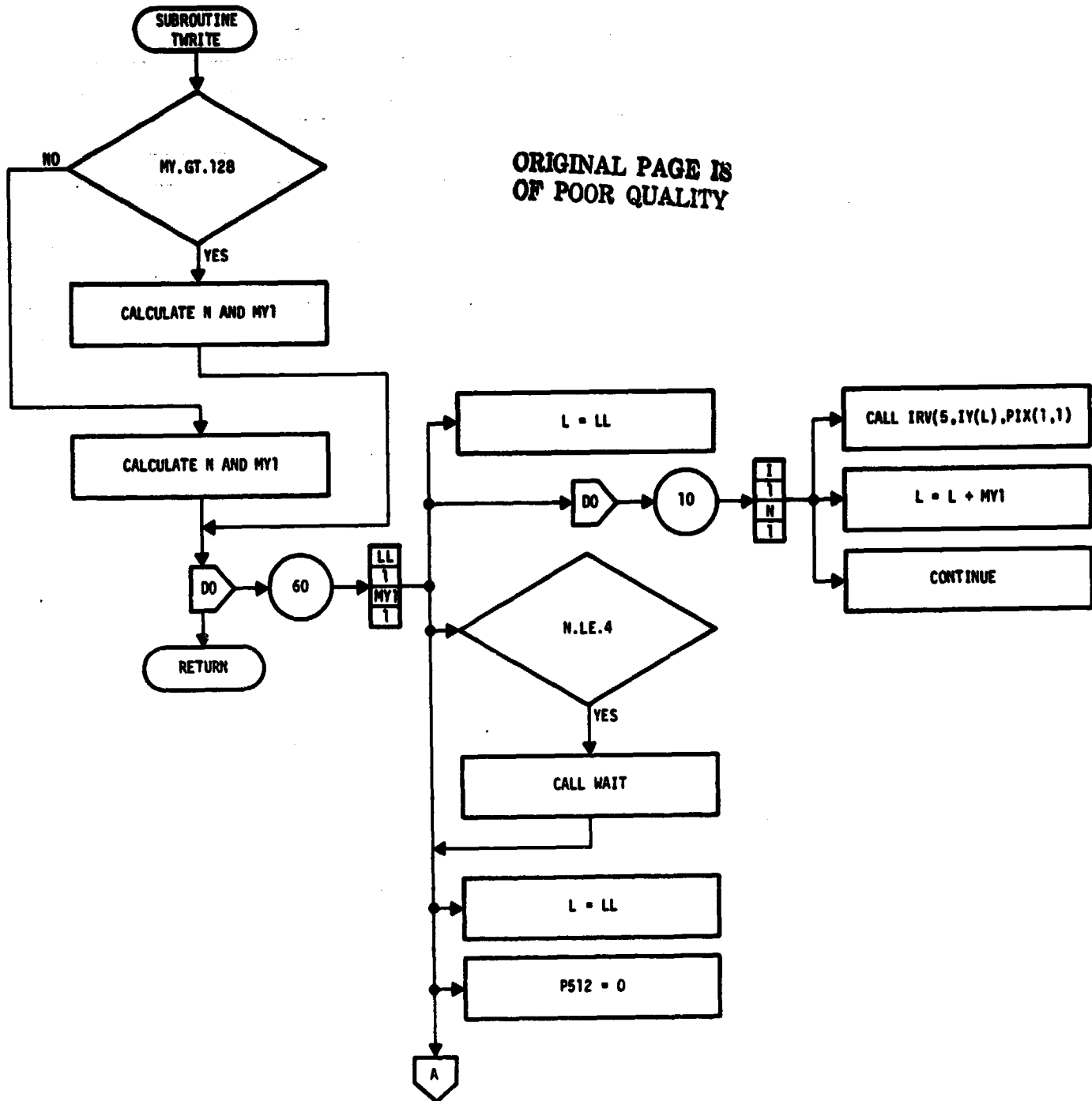
0041 C P512 = P512 + 512
0042 40 CONTINUE
0043 45 L=LL

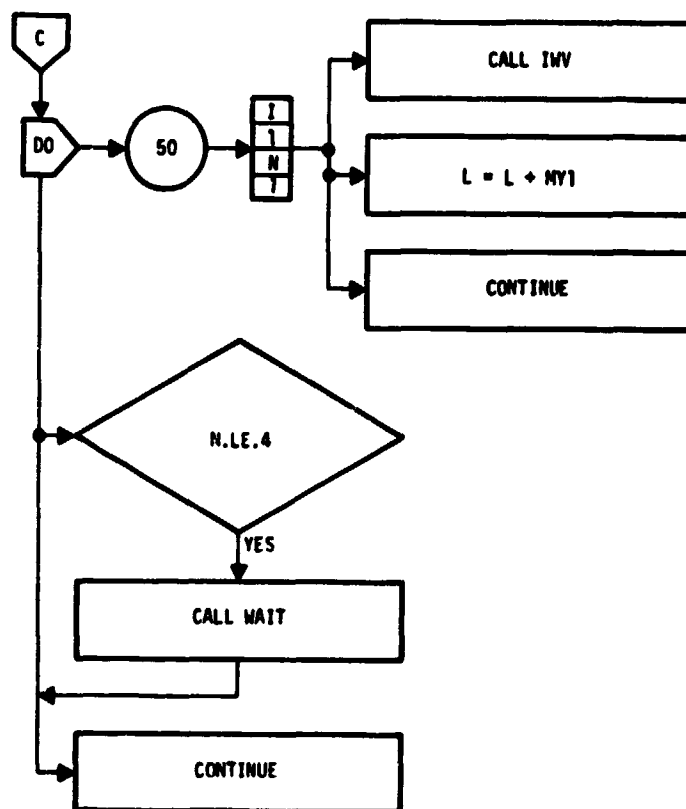
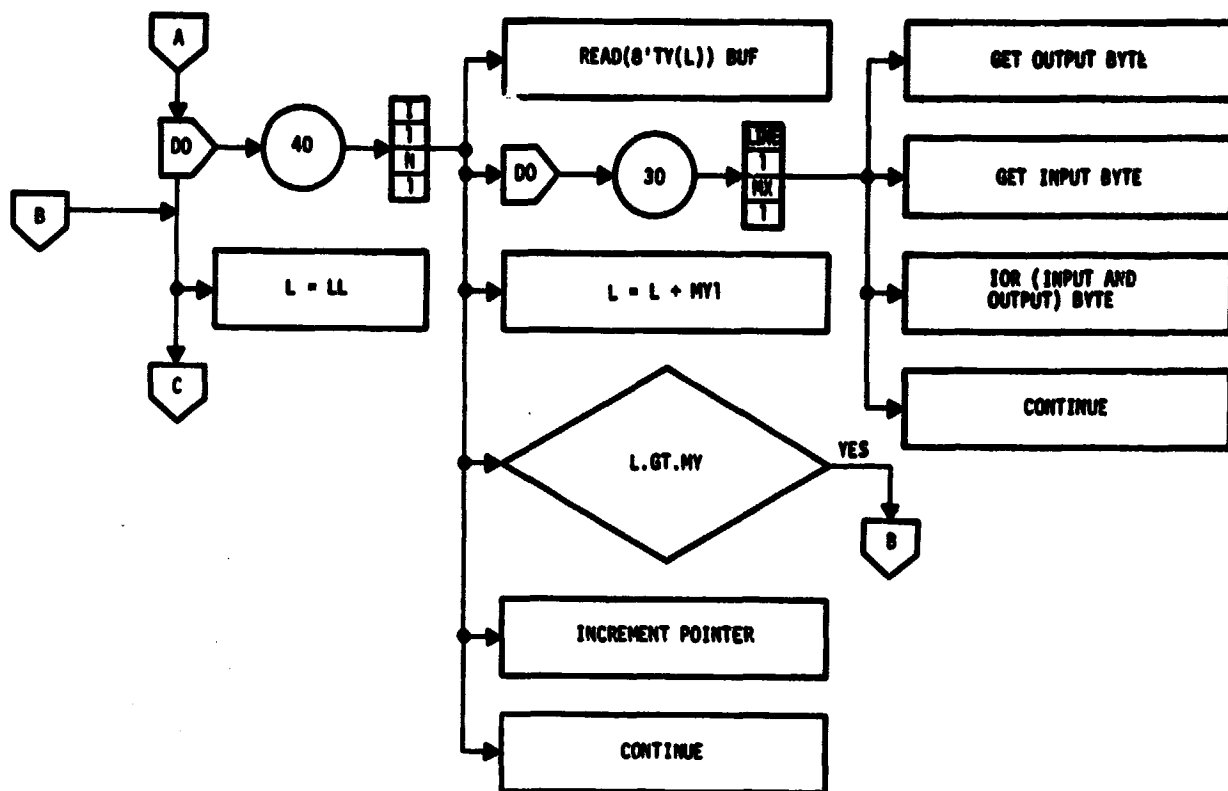
C
C
C
C

WRITE PROCESSED DATA BACK TO CHANNEL FIVE
FOR THEM DISPLAY OF CLUSTERS

0044 DO 50 I=1,N
0045 CALL INW(5,IV(L),PIX(1,I))
0046 L = L+MY1
0047 IF(L,GT,MY) GO TO 55
0048 50 CONTINUE
0049 55 IF(N,LE,4) CALL WAIT
0050 60 CONTINUE
0051 RETURN
0052 END

15.6 SUBROUTINE TWRITE





15.7 SUBROUTINE CLABEL

HPFTRAN IV-PLUS V02-04

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PAGE 1

CLABEL,FTN

/YR:BLOCKS/WR

SUBROUTINE CLABEL

CCC

THIS PROGRAM CHANGES CLUSTER LABELS

```

0002      IMPLICIT INTEGER (A-Z)
0003      INCLUDE 'C300,3JCAMSCOMMON,INC'
0004      INCLUDE 'SYIC300,3JCAMSPARAM,INC'
0005      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NP1X=196,NL1N=117,MAXFLD=90
      1,MAXV=11,NDBTS=209,DLISK1P=10,DSK1P=10,MAXACD=6,MAXACC=4,
      2NBSPPD=6,NBDTWD=10
0006      EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,TX1),(C5,DISKID)
0007      INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)
      C=
0008      INTEGER ACDATE,SUBCAT,SUBPOP,CATKNT,CATTH
0009      BYTE CHNVEC,NCHAN,NOSUB,DOTCAT,DOTCLU
0010      COMMON/COM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NCHAN,NOSUB,
      1SUBCAT(MAXSUB),SUBPOP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NDBS,
      2NBDU,NBTH,DOTCAT(NDBTS),DOTCLU(NDBTS)
      C=
0011      INTEGER ADATES,SUNAZ,ANALST,FLDDAY,DOTDAY,PDATE1,TDATE1
0012      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDON,GRID
0013      BYTE DELFLG,NBACQ,S0ILGR,SUNEL,NSTART,NTYPE1,ALP,ALP0
0014      BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE
0015      COMMON/COM2/ISEG,DELFLG,NBACQ,ADATES(2,MAXACD),S0ILGR(MAXACD),
      1SUNEL(MAXACD),SUNAZ(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),
      2DOTDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
      3PDATE3(2),TDATE3(2),NBACAT,CATNAM(MAXCAT),ALP(MAXCAT),ALP0,
      4      PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0
      C=
0016      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
      1UFLAG4
0017      INTEGER PFLAG,DSKMNT
0018      COMMON/COM3/PFLAG,DSKMNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1
      1,UFLAG2,UFLAG3,UFLAG4,NEWLAB(MAXSUB)
      C=
0019      INTEGER TX1,TY1,TX2,TY2,ACNISP,G,B,DTWIND,DOTARY,GMIN,GMAX,FUL
0020      INTEGER SPWIND,CLAWND,CLUWND
0021      COMMON/COM4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I1(4),G(4),
      1B(4),DTWIND(5,NBDTWD),SPWIND(5,NBSPPD),IMWIND(4),NUMDST,
      2DOTARY(NDBTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)
0022      COMMON/COM5/DISKID,RANDON(NDBTS),GRID(NDBTS),DLABEL(NDBTS),
      1TYPE(NDBTS),RECLFC
0023      COMMON/LOC0M2/CMASK
0024      DIMENSION CMASK(60)
0025      BYTE W(74),LABEL(2)
0026      EQUIVALENCE (ILAPL,LABEL(1))
0027      IFLG=0
0028      N=NOSUB/20
0029      IF(NOSUB,NE,N=20) N=N+1
0030      IF(N,GT,3) N=3
0031      10      IBEG=1
0032      IEND=20
0033      IF(IEND,GT,NOSUB) IEND=NOSUB

```

LIST THE CLUSTERS AND CATEGORIES


```

FORTRAN IV+PLUS V02-04          09154143      29-JUN-77          PAGE 2
CLABEL,FTN      /TR1BLOCKS/HR
0034          DO 20 I=1,N
0035              WRITE(6,810) (J,J=IBEG,IBND)
0036              WRITE(6,820) (CATNAM(NEWLAB(J)),J=IBEG,IBND)
0037              IBEG=IBEG+20
0038              IBND=IBND+20
0039              IF (IBND.GT.NBSUB) IBND=NBSUB
0040          20      CONTINUE
0041          30      CONTINUE

C
C
C              GET USER INPUTS - CLUSTER NUMBER AND LABEL

0042          IF (IFLG.NE.0) WRITE(6,830)
0043          IF (IFLG.EQ.0) WRITE(6,835)
0044          READ(6,800) W
0045          CALL FRONT(W,74)
0046          IFLG=1
0047          IF (W(1).EQ.'L') GO TO 10
0048          IF (W(1).EQ.'X') GO TO 777
0049          IF (W(1).EQ.' ') GO TO 777
0050          IPT = 0
0051          CALL INTFF(IPT,W,74,CLUSNB)

C
C
C              CHECK IF CLUSTER NUMBER IS VALID

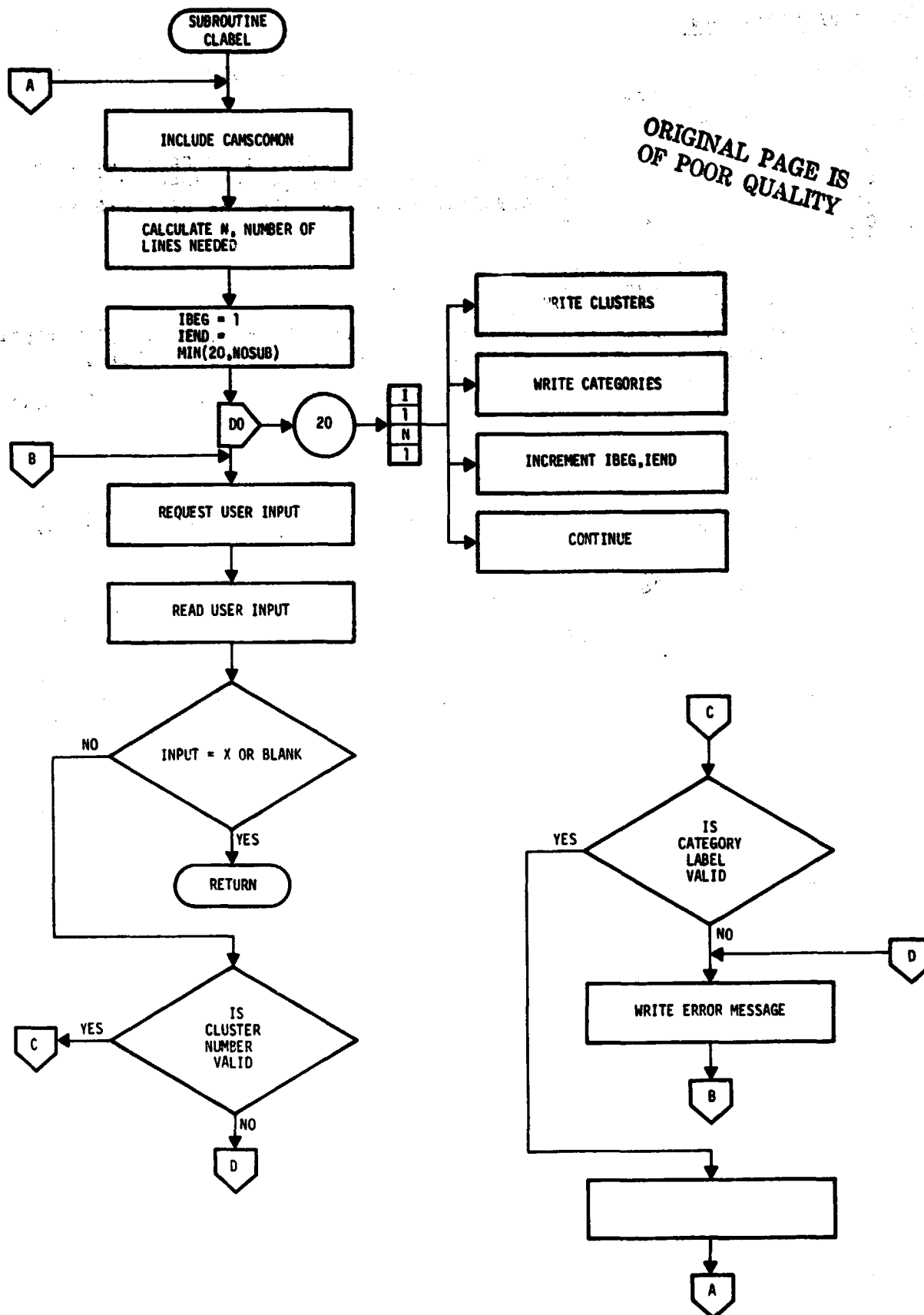
0052          IF (CLUSNB.LT.1.OR.CLUSNB.GT.NBSUB) WRITE(6,840)
0053          IF (CLUSNB.LT.1.OR.CLUSNB.GT.NBSUB) GO TO 30
0054          40      IPT=IPT+1
0055          IF (IPT.GT.NBSUB) WRITE(6,840)
0056          IF (IPT.GT.NBSUB) GO TO 30
0057          IF (W(IPT).EQ.' ' .OR. W(IPT).EQ.'L') GO TO 40
0058          LABEL(1) = W(IPT)
0059          LABEL(2) = W(IPT+1)

C
C
C              CHECK IF LABEL IS VALID

0060          DO 50 I=1,NBCAT
0061              IF (ILABEL.EQ.CATNAM(I)) GO TO 60
0062          50      CONTINUE
0063          WRITE(6,850)
0064          GO TO 30
0065          60      NEWLAB(CLUSNB)=I
0066          GO TO 30
0067          777      CONTINUE
0068          RETURN
0069          800      FORMAT(74A1)
0070          810      FORMAT(/' CLUSTER ',20I3)
0071          820      FORMAT(' LABEL ',20(1X,A2)/)
0072          830      FORMAT(/'S (L)1ST OR CLUSTER NUMBER THEN LABEL >')
0073          835      FORMAT(/'S CLUSTER NUMBER THEN LABEL >')
0074          840      FORMAT(/' *** INPUT ERROR ***//')
0075          850      FORMAT(' INCORRECT LABEL ... TRY AGAIN')
0076          END

```


15.7 SUBROUTINE CLABEL



15.8 SUBROUTINE GETCOO

HPFORTRAN IV-PLUS V02-04

09194198

29-JUN-77

PAGE 1

GETCOO.FTN

/TR:BLOCKS/WR

0001 SUBROUTINE GETCOO(IC,TC,ISET)

C
C
C
C
C
C

THIS PROGRAM GETS COORDINATES FROM THE USER
FOR THE CLUSTER MAP FILE AND THEME DISPLAY
IF COORDINATES OTHER THEN THE DEFAULTS ARE
DESIRED

```

0002      IMPLICIT INTEGER(A=2)
0003      INCLUDE 'C300,3JCAHSCOMON,INC'
0004      INCLUDE 'SYIC300,3JCAHSPARAM,INC'
0005      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=127,MAXFLD=90
          1,MAXV=11,NDBTS=209,DLSKIP=10,DSSKIP=10,MAXACD=6,MAXACC=4,
          2,NBSPWD=6,NBDTWD=10
0006      EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,TX1),(C5,DISKID)
0007      INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)
          C*
0008      INTEGER ACDATE,SUBCAT,SUBPOP,CATKNT,CATTH
0009      BYTE CHNVEC,NCHAN,NOSUB,DOTCAT,DOTCLU
0010      COMMON/COM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NCHAN,NOSUB,
          1SUBCAT(MAXSUB),SUBPOP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NDB,
          2NODU,NBTH,DOTCAT(NDBTS),DOTCLU(NDBTS)
          C*
0011      INTEGER ADATES,SUNAZ,ANALST,FLDDAY,DOTDAY,PDATE1,TDATE1
0012      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDOM,GRID
0013      BYTE DELFLG,NBACO,SOLGR,SUNEL,NSTART,NTYPE1,ALP,ALPB
0014      BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE
0015      COMMON/COM2/ISEG,DELFLG,NBACO,ADATES(2,MAXACD),SOLGR(MAXACD),
          1SUNEL(MAXACD),SUNAZ(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),
          2DOTDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
          3PDATE3(2),TDATE3(2),NBACAT,CATNAM(MAXCAT),ALP(MAXCAT),ALPB,
          4PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0
          C*
0016      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
          1UFLAG4
0017      INTEGER PFLAG,DSKMNT
0018      COMMON/COM3/PFLAG,DSKMNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1
          1,UFLAG2,UFLAG3,UFLAG4,NEULAB(MAXSUB)
          C*
0019      INTEGER TX1,TY1,TX2,TY2,ACDISP,G,B,DTWIND,DOTARY,GMIN,QMAX,FUL
0020      INTEGER SPWIND,CLAWND,CLUWND
0021      COMMON/COM4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I1(4),G(4),
          1B(4),DTWIND(5,NBDTWD),SPWIND(5,NBSPWD),IMWIND(4),NUMDBT,
          2DOTARY(NDBTS),GMIN,QMAX,FUL(2,7),CLAWND(8),CLUWND(8)
0022      COMMON/COM5/DISKID,RANDOM(NDBTS),GRID(NDBTS),DLABEL(NDBTS),
          1TYPE(NDBTS),RECL0C
0023      DIMENSION IC(4),TC(4)
0024      DIMENSION COORD(4)
0025      BYTE W(74)
0026      ISET=0

```

C
C
C

GET DEFAULT COORDINATES

```

0027      IC(1)=IX1
0028      IC(2)=IY1
0029      IC(3)=IX2
0030      IC(4)=IY2

```

~~15-34~~

154

FORTTRAN IV=PLUS
GETC00,FTN

V02=04
/TR:BLOCKS/WR

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PAGE 2

0031 TC(1)=TX1
0032 TC(2)=TY1
0033 TC(3)=TX2
0034 TC(4)=TY2
0035

10

C
C
C
C
C

DISPLAY DEFAULT INPUT COORDINATES

USER MAY CHANGE COORDINATES

0036 WRITE(6,820) TC
0037 WRITE(6,830)
0038 CALL OUTPUT(7)
0039 READ(6,800) W
0040 CALL FRONT(W,74)
0041 IF(W(1).EQ.'R') GO TO 10
0042 IF(W(1).EQ.'I') GO TO 40
0043 IF(W(1).EQ.'X') GO TO 777
0044 IPT = 0

C
C
C

CHECK IF INPUT COORDINATES ARE VALID

0045 DO 15 I=1,4,2
0046 CALL INTFF(IPT,W,74,COORD(I))
0047 IF(COORD(I).GT.NPIX,OR,COORD(I).LT.1) GO TO 20
0048 CALL INTFF(IPT,W,74,COORD(I))
0049 IF(COORD(I+1).GT.NLIN,OR,COORD(I+1).LT.1) GO TO 20
0050 15 CONTINUE
0051 GO TO 30
0052 20 CONTINUE
0053 WRITE(6,850)
0054 GO TO 10
0055 30 CONTINUE

C
C
C

SAVE NEW COORDINATES

0056 DO 35 I=1,4
0057 TC(I)=COORD(I)
0058 COORD(I)=0
0059 35 CONTINUE

C
C
C
C
C

DISPLAY DEFAULT OUTPUT COORDINATES

USER MAY CHANGE COORDINATES

0060 40 WRITE(6,840) IC
0061 WRITE(6,830)
0062 CALL OUTPUT(7)
0063 READ(6,800) W
0064 CALL FRONT(W,74)
0065 IF(W(1).EQ.'R') GO TO 10
0066 IF(W(1).EQ.'I') GO TO 70
0067 IF(W(1).EQ.'X') GO TO 777
0068 IPT=0
0069 DO 45 I=1,4
0070 CALL INTFF(IPT,W,74,COORD(I))

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FORTRAN IV-PLUS V02-04
GETCOB.FTN /TRIBLOCKS/WR
0071 49 CONTINUE

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PAGE 3

C
C
C

CHECK IF BUTPUT COORDINATES ARE VALID

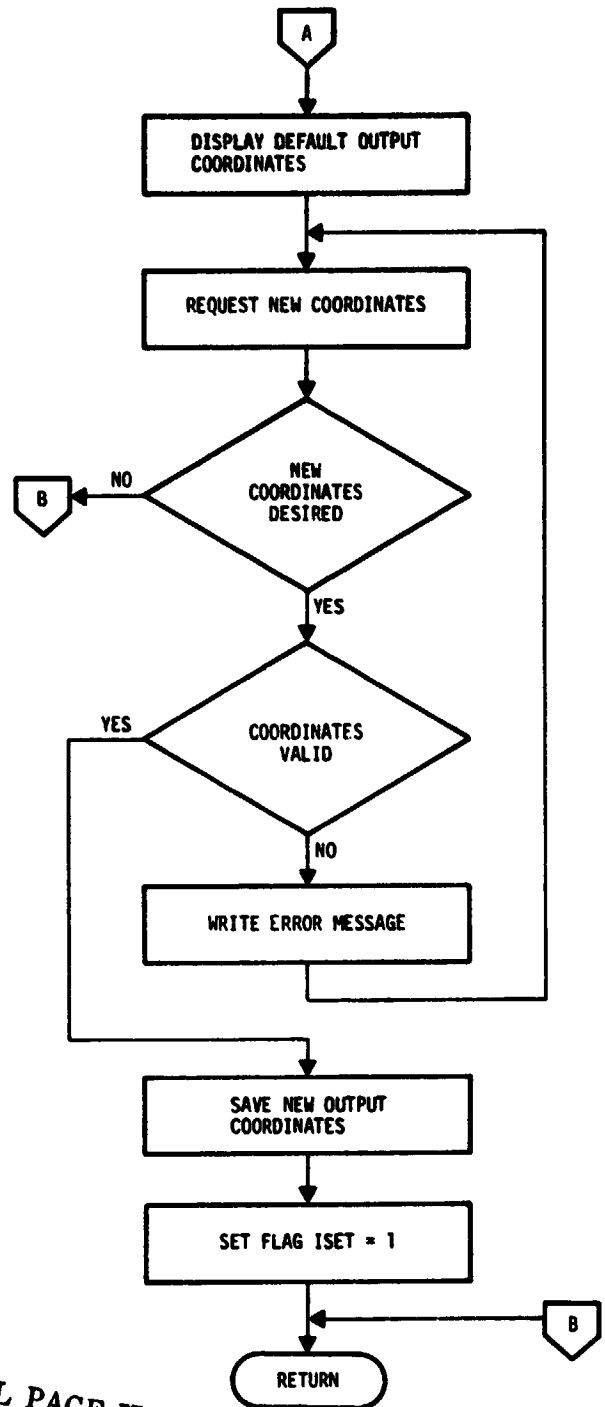
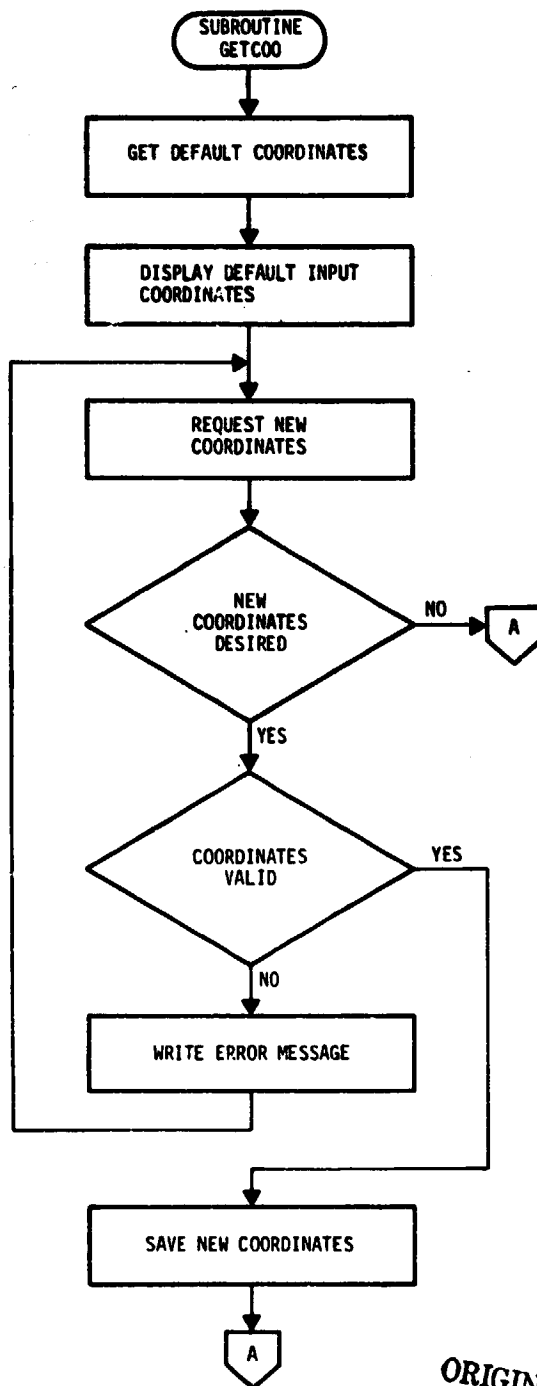
0072 IF(COORD(3).EQ.0) COORD(4)=COORD(2)*NL/N
0073 IF(COORD(3).EQ.0) COORD(3)=COORD(1)*NP/X
0074 DO 50 I=1,4
0075 IF(COORD(I).LE.512.AND.COORD(I).GE.1) GO TO 50
0076 WRITE(6,850)
0077 GO TO 40
0078 CONTINUE

50
C
C
C

SAVE NEW COORDINATES

0079 DO 60 I=1,4
0080 IC(I)=COORD(I)
0081 COORD(I)=0
0082 60 CONTINUE
0083 70 ISET=1
0084 777 CONTINUE
0085 RETURN
0086 800 FORMAT(74A1)
0087 820 FORMAT(/' SEGMENT COORDINATES ARE >'.13.1.1.13.4X.13.1.1.13)
0088 830 FORMAT('S NEW COORDINATES IF DESIRED >')
0089 840 FORMAT(/' DISPLAY COORDINATES ARE >'.13.1.1.13.4X.13.1.1.13)
0090 850 FORMAT('S *** ERROR IN COORDINATES * TRY AGAIN ***')
0091 880 FORMAT(/' *** INPUT ERROR ***')
0092 END

15.8 SUBROUTINE GETCOO



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PAGE 1

4/18/68

```

SUBROUTINE Z0000M(IX1,IY1,IX2,IY2, TX1, TY1, TX2, TY2, IX, IY, TX, TY.

```

1 X2, Y2, MX, MY, NX)

CCCCC

THIS PROGRAM MAPS THE CLUSTER MAP FILE TO THE THEME DISPLAY; THE MAP GENERATED PROVIDES FOR ZOOMING UP OR DOWN MAKING THE CLUSTER MAP LARGER OR SMALLER THAN ITS ORIGINAL 106 X 117

IMPLICIT INTEGER (A-Z)

COMMON /FATAL/ED. RR

00000000000000000000

VARIABLE DEFINITION

IX1,IV1,IX2,IV2 ARE USER INPUTS FOR THE LOCATION
OF THE CLUSTER ON THE THEME DISPLAY

TX1,TY1,TX2,TY2 ARE (1,1) AND (196,117) FOR THE CLUSTER MAP DISPLAY

MX AND MY ARE THE NUMBER OF PIXELS AND THE NUMBER OF LINES OF DISPLAY

NX IS THE NUMBER PIXELS INPUT FROM THE CLUSTER MAP
 IX AND IY ARE THE DISPLAY OUTPUT LOCATIONS FOR THE
 CLUSTER MAP VALUES IN TX AND TY

20 = 1 MEANS INPUT COORDINATES (IX1,IY1,IX2,IY2)
ARE ERRONEOUS

XZ AND YZ ARE THE X AND Y ZOOM FACTORS

REAL XZ,YZ

```

      INTEGER IX(512),IY(512),TX(512),TY(512)

```

2000

```
IF (IX1=IX2) 1,2,3
```

Q1=1

$$MX = IX_2 = IX_1 + 1$$

CG 70 4

Q14.

$$MX = [X_1 \quad X_2 \quad 1]$$

IF(TX1=TX2)5,2,6

Q2#1

TX-1

NX#TX2-TX1-1

62 70 7

0200

TB#TX2

$$NX = TX_1 - TX_2 + 1$$
$$X2 \cdot Q1 \cdot MX / FL \cdot \Delta T (TX2 - TX1 \cdot Q2)$$

DD FORM 131, MX

1X(1)01X10010(101)
7411 7411 7411 7411 7411

YX(1), YX10G10(1-1)/X2

IF (YV1-YV2) 10,2,11

TB-2V1
 10-2V1

YB#YV1

0401
240

YVD-142-141-1
22 22 12

BB YB 12
BB-214

YB8TY2
100115

1981V2
045-1

648-2

FORTAN IV=PLUS		V02-04	09155110	29-JUN-77	PAGE 2
2000M,FTN		/TRIBLOCKS/WR			
0034		TYD=TY1=TY2+1			
0035	12	IF(IY1=IY2)13,2,14			
0036	13	MY=IY2=IY1+1			
0037		GO TO 15			
0038	14	MY=IY1=IY2+1			
0039		Q4=-Q4			
0040	15	Y2=FLBAT(MY)/FLBAT(TYD)			
0041		DO 16 I=1,MY			
0042		IY(I)=IY+Q4*(I=1)			
0043	16	TY(I)=TB+(I=1)/Y2			
0044		RETURN			
0045	2	WRITE(6,800) IX1,IY1,IX2,IY2,IX1,TY1,IX2,TY2			
0046	800	FORMAT(' INPUT COORDINAT ERROR IN 20000M'/' ',816)			
0047		Z0=1			
0048		RETURN			
0049		END			

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15.9 SUBROUTINE ZOOOM

A flow chart for this subroutine is not available.

15.10 SUBROUTINE REPORT

09155129

29-JUN-77

PAGE 1

HFORTRAN IV=PLUS V02=04
TREPOR,FTN /TRIBLOCKS/WR
0001 SUBROUTINE REPORT
0002 WRITE(6,800)
0003 RETURN
0004 800 FORMAT(' SUCCESSFUL CALL TO REPORT')
0005 END

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15.10 SUBROUTINE REPORT

A flow chart for this subroutine is not available.

15.11 SUBROUTINE DEFAULT

WFORTRAN IV=PLUS V02=04
 DEFAULT.FTN /TR18BLOCKS/HR

09155131

29 JUN 77

PAGE 1

C
 C
 C
 C

THIS PROGRAM ASSIGNS DEFAULT CATEGORIES
 TO THEMES

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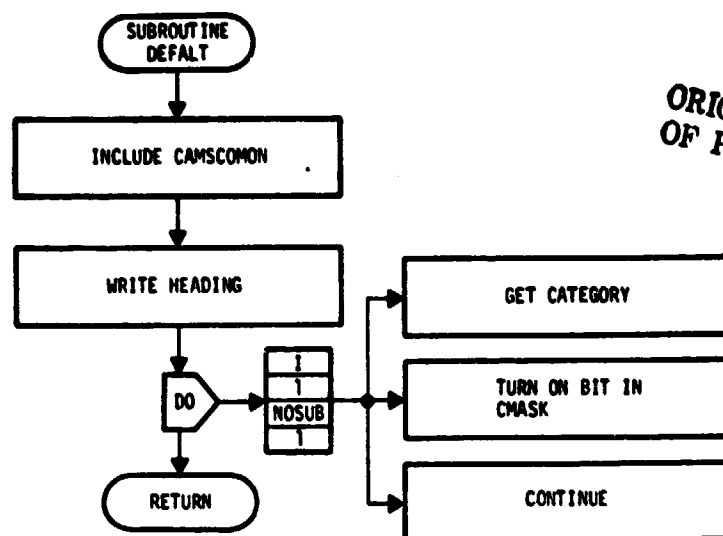
0001      SUBROUTINE DEFAULT(CHASK)
0002      IMPLICIT INTEGER(A=2)
0003      INCLUDE '(300,3)CAMSCOMMON,INC'
0004      INCLUDE 'SYI(300,3)CAMSPARAM,INC'
0005      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXPLD=50
      1,MAXV=11,NDBTS=209,DLISK[P=10,DSBK[P=10,MAXACD=6,MAXACC=4,
      2NOSPWD=6,NODTWD=10
0006      EQUIVALENCE (C1,ACDATE),(C2,ISEQ),(C3,PFLAG),(C4,TX1),(C5,DISKID)
0007      INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)
      C=
0008      INTEGER ACDATE,SUBCAT,SUBPOP,CATKNT,CATTH
0009      BYTE CHNVEC,NCHAN,NOSUB,DOTCAT,DOTCLU
0010      COMMON/C0M1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NCHAN,NOSUB,
      1SUBCAT(MAXSUB),SUBPOP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NODD,
      2NODU,NOTH,DOTCAT(NDBTS),DOTCLU(NDBTS)
      C=
0011      INTEGER ADATES,SUNAZ,ANALST,FLDDAY,DOTDAY,PDATE1,TDATE1
0012      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDOM,GRID
0013      BYTE DELFLG,NBACO,SBILGR,SUNEL,NSTART,NTYPE1,ALP,ALPB
0014      BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE
0015      COMMON/C0M2/ISEQ,DELFLG,NBACO,ADATES(2,MAXACD),SBILGR(MAXACD),
      1SUNEL(MAXACD),SUNAZ(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),
      2DOTDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
      3PDATE3(2),TDATE3(2),NOCAT,CATNAM(MAXCAT),ALP(MAXCAT),ALPB,
      4PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0
      C=
0016      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
      1UFLAG4
0017      INTEGER PFLAG,OSKMNT
0018      COMMON/C0M3/PFLAG,OSKMNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1
      1,UFLAG2,UFLAG3,UFLAG4,NEULAB(MAXSUB)
      C=
0019      INTEGER TX1,TY1,TX2,TY2,ACDISP,G,B,DTWIND,DOTARY,GMIN,GMAX,FUL
0020      INTEGER SPWIND,CLAWND,CLUWND
0021      COMMON/C0M4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I11(4),G(4),
      1B(4),DTWIND(5,NODTWD),SPWIND(5,NOSPWD),IMWIND(4),NUMDBT,
      2DOTARY(NDBTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)
0022      COMMON/C0M5/DISKID,RANDOM(NDBTS),GRID(NDBTS),DLABEL(NDBTS),
      1TYPE(NDBTS),RECL0C
0023      DIMENSION CHASK(60),MASK(8)
0024      DATA MASK/'001','002','004','010','020','040','100','200'/
0025      WRITE(6,800)
0026      DO 30 I=1,NOCAT
0027      WRITE(6,810) CATNAM(I),I
0028      DO 20 J=1,NOSUB
0029      IF(CATNAM(NEULAB(J)),NE,CATNAM(I)) GO TO 20
0030      M=CHASK(J)
0031      CHASK(J)=IOR(M,MASK(I))
0032      20 CONTINUE
0033      30 CONTINUE
0034      RETURN
0035      800 FORMAT(/3X,'DEFAULT'/)

```


FORTAN IV-PLUS V02-04 09155131 29-JUN-77
DEPALT,FTN /TRIDLOCKS/WR
0036 010 FORMAT(3X,A2,2X,(2)
0037 END

PAGE 2

15.11 SUBROUTINE DEFALT



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15.12 SUBROUTINE COND18

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HPFTRAN IV-PLUS V02-04
CONDIS.FTN          /TRIBLOCKS/WR
0001                SUBROUTINE CONDIS

```

00135141 29 JUN 77

PAGE 1

[illegible]

FORTRAN IV-PLUS V02-04 09155141 29-JUN-77 PAGE 2
 CONDISE,FTN /TR:BLOCKS/HR
 0029 BYTE W(74), ATIME(8)
 0030 CALL OUTPUT(27,12)
 0031 CALL IDATE(MM,DD,YY)
 0032 CALL TIME(ATIME)

C
C
C

DISPLAY STANDARD HEADING AND PROGRAM NAME

0033 WRITE(6,820) MM,DD,YY,ATIME
 0034 WRITE(6,810)

C
C
C

CHECK NEAREST NEIGHBOR FILE EXISTANCE FLAG

0035 IF(EFLAG4,NE,1) WRITE(6,890)
 0036 IF(EFLAG4,NE,1) RETURN
 0037 IFLG*1
 0038 10 CONTINUE
 0039 DO 15 I=1,MAXSUB
 0040 CHASK(I)=0
 0041 15 CONTINUE

C
C
C

GET COORDINATES

0042 CALL GETCON(IC,TC,ISET)
 0043 IF(ISET,EQ,0) GO TO 777

C
C
C

ALLOW FOR ZOOMING UP OR DOWN

0044 20 CALL ZOOMCON(IC(1),IC(2),IC(3),IC(4),TC(1),TC(2),TC(3),TC(4),
 1 IX,IY,IX,IV,DXE,DYE,MX,MY,DNX)
 0045 IF(20,EQ,1) GO TO 10

C
C
C

SAVE COORDINATES IN GLOBAL COMMON

0046 DO 25 I=1,8
 0047 IF(I,LE,4) CLUWND(I)=TC(I)
 0048 IF(I,LE,4) GO TO 25
 0049 CLUWND(I)=IC(I-4)
 0050 25 CONTINUE

C
C
C

FIND CONDITIONAL CLUSTERS

0051 CALL CONDIT(COND,ISET)
 0052 IF(ISET,EQ,0) GO TO 777
 0053 CALL OUTPUT(27,12)

C
C
C
C
C
C
C
C

LIST USER OPTIONS

THE OPTIONS ARE:
 1 - LIST OF CLUSTERS, CATEGORIES, AND CONDITIONAL C
 2 - CATEGORY TO THEME ASSIGNMENT
 3 - CLUSTER TO THEME ASSIGNMENT
 4 - CLUSTER LABEL CHANGE

0054 WRITE(6,830)
 0055 GO TO 35
 0056 30 WRITE(6,840)

ORIGINAL PAGE IS
OF POOR QUALITY

CONDIS.FTN

/TRIBLOCKS/WR

0057

39

CALL OUTPUT(7)

0058

READ(6,800) W

0059

CALL FRONT(W,74)

0060

IF(W(1),EQ,'1') GO TO 40

0061

IF(W(1),EQ,'1') CALL LISTE(COND,IFLG)

0062

IF(W(1),EQ,'1') GO TO 30

0063

IF(W(1),EQ,'2') CALL CATTHM

0064

IF(W(1),EQ,'2') GO TO 30

0065

IF(W(1),EQ,'3') CALL CLUTHM

0066

IF(W(1),EQ,'3') GO TO 30

0067

IF(W(1),EQ,'4') CALL CLABEL

0068

IF(W(1),EQ,'4') GO TO 30

0069

IF(W(1),EQ,'X') GO TO 60

0070

WRITE(6,880)

0071

GO TO 30

0072

40

CONTINUE

C

C

C

WRITE CLUSTER ASSIGNMENT TO THEME

0073

CALL TWRITE

C

C

C

EXIT OR RESTART OPTION

0074

60

WRITE(6,870)

0075

CALL OUTPUT(7)

0076

READ(6,800) W

0077

CALL FRONT(W,74)

0078

IF(W(1),EQ,'R') GO TO 10

0079

IF(W(1),EQ,'X') GO TO 777

0080

WRITE(6,880)

0081

GO TO 60

0082

777

CONTINUE

0083

RETURN

0084

800

FORMAT(74A1)

0085

810

FORMAT(/10X,'CONDITIONAL CLUSTER MAP DISPLAY/MAY 1977')

0086

820

FORMAT(/40X,'DATE' ,12,'/',12,'/',12,

1

/40X,'TIME' ,8A1)

0087

830

FORMAT(/' USER OPTIONS ARE',/

1

' 1 = LIST OF CLUSTERS, CATEGORIES, AND CONDITIONAL CLUSTERS',/

2

' 2 = CATEGORY TO THEME ASSIGNMENT',/

3

' 3 = CLUSTER TO THEME ASSIGNMENT',/

4

' 4 = CLUSTER LABEL CHANGES',/

5

' X = EXIT',/

6

' CR ... FOR CONTINUE',/

7

'S ENTER OPTION >')

0088

840

FORMAT(/' USER OPTIONS ARE',/

1

' 1 = LIST, 2 = CAT TO THM, 3 = CLU TO THM, 4 = LAB CHANGE',/

2

' E(X)IT, CR',/

3

'S ENTER OPTION >')

0089

870

FORMAT('S (R)ESTART OR E(X)IT >')

0090

880

FORMAT(' INPUT ERROR ... TRY AGAIN')

0091

890

FORMAT(' EFLAG4 IS NOT SET TO 1',/

1

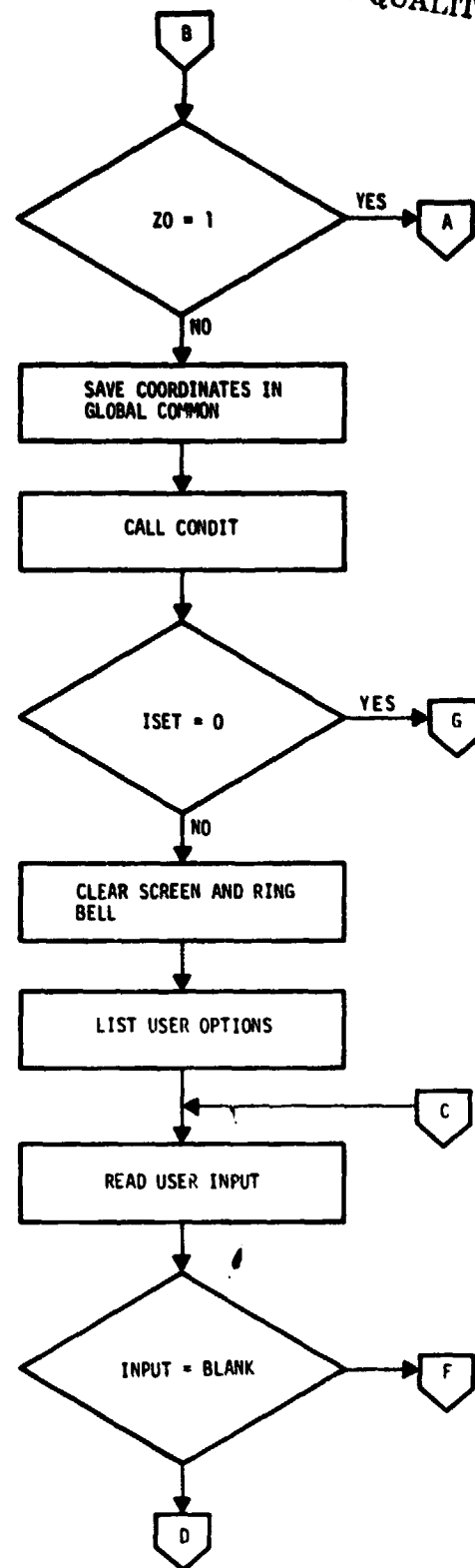
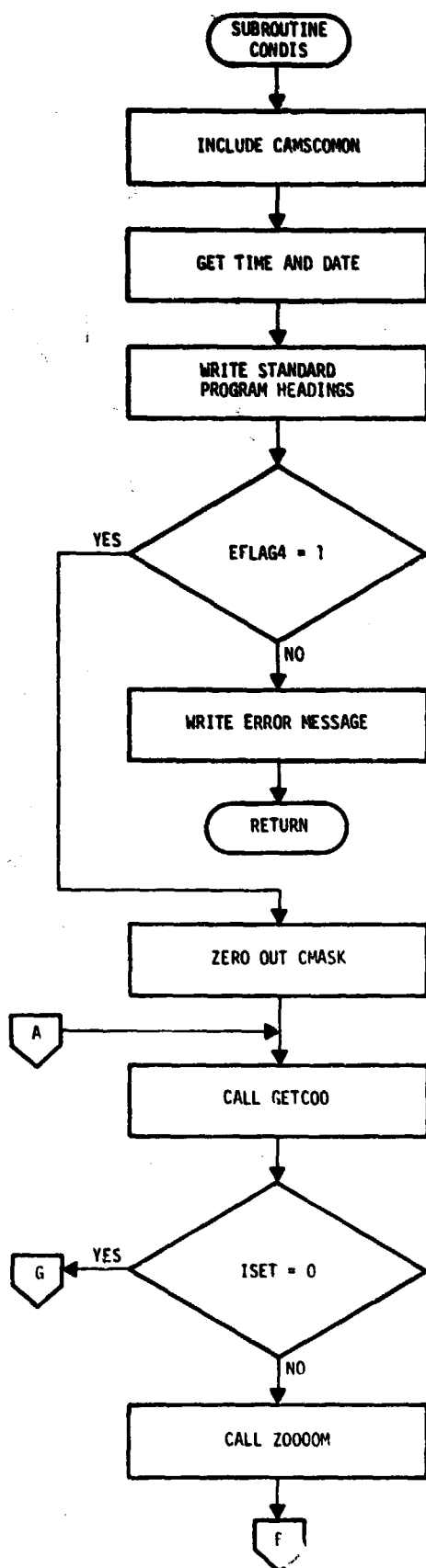
' NEAREST NEIGHBOR DATA NOT AVAILABLE')

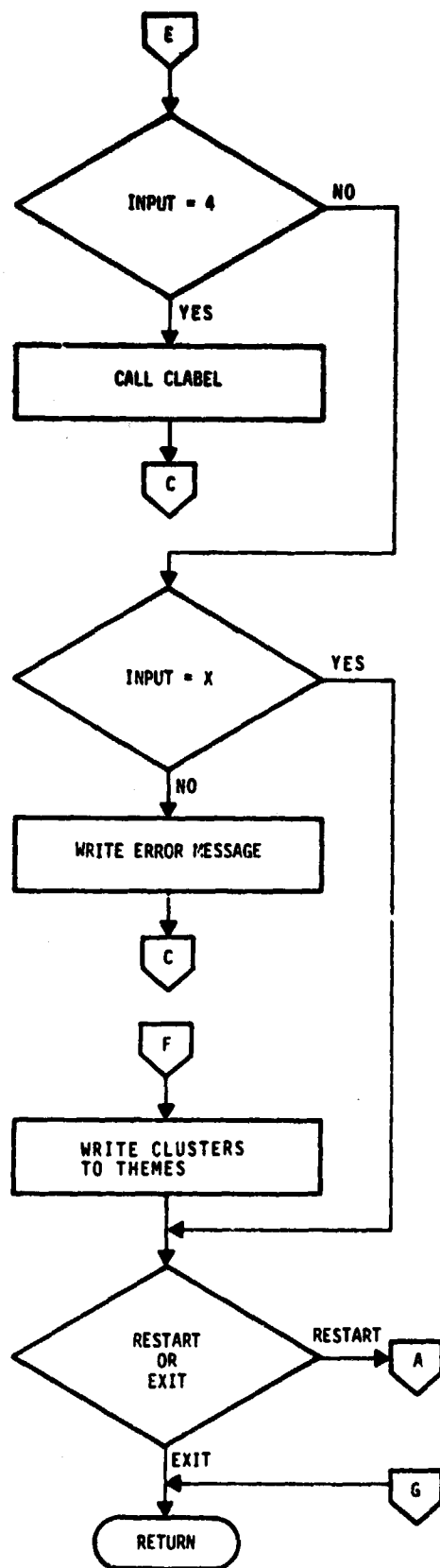
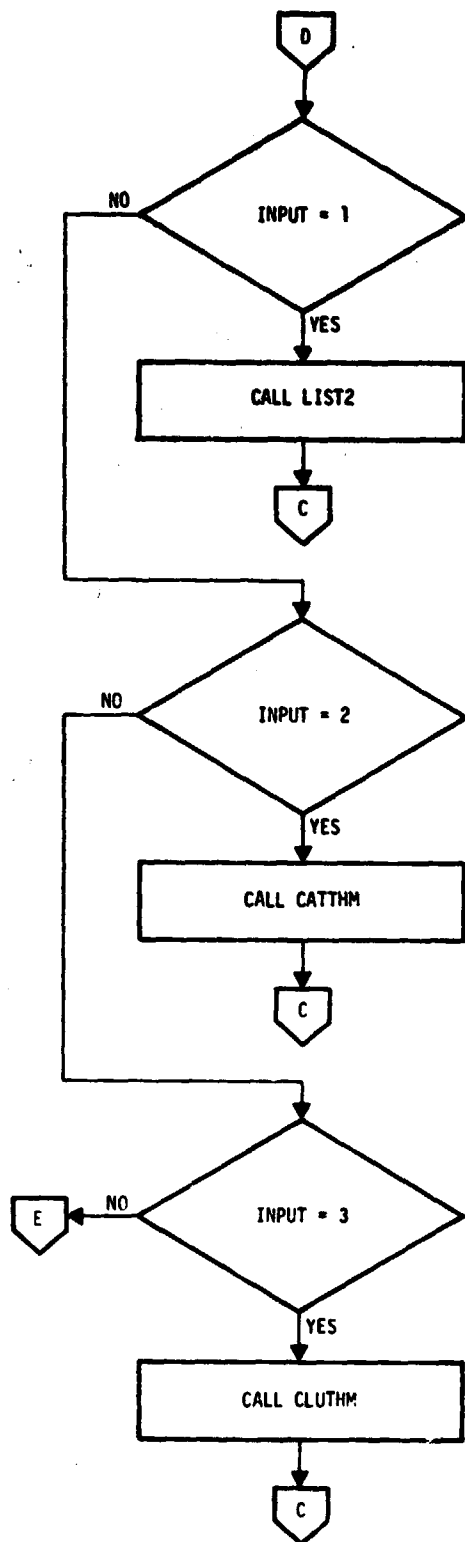
0092

END

15.12 SUBROUTINE COND18

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15.13 SUBROUTINE CONDIR

WFORTRAN IV-PLUS V02-04

09156100

29-JUN-77

PAGE 1

CONDIT.FTN

/TRIBLOCKS/WR

SUBROUTINE CONDIR(COND, ISET)

0001

C
C
C
C

THIS PROGRAM DETERMINES WHICH OF THE
CLUSTERS ARE CONDITIONAL

0002

IMPLICIT INTEGER(A-Z)

0003

INCLUDE 'C300,3JCAMSCOMON,INC'

0004 *

INCLUDE 'SYIC300,3JCAMSPARAM,INC'

0005 *

PARAMETER MAXCAT=60, MAXSUB=60, MAXCHN=4, NP1X=196, NLIN=117, MAXPLD=90,
1, MAXV=11, NDBTS=209, DLSKIP=10, DSSKIP=10, MAXACD=6, MAXACC=4,
2NOSPWD=6, NBDTWD=10

0006 *

EQUIVALENCE (C1, ACDATE), (C2, ISEQ), (C3, PFLAG), (C4, TX1), (C5, DISKID)

0007 *

INTEGER C1(469), C2(256), C3(71), C4(348), C5(629)

C*

0008 *

INTEGER ACDATE, SUBCAT, SURPOP, CATKNT, CATTH

0009 *

BYTE CHNVEC, N0CHAN, N0SUB, D0TCAT, D0TCLU

0010 *

COMMON/C0M1/ACDATE(2, MAXACC), CHNVEC(MAXCHN, MAXACC), N0CHAN, N0SUB,
1SUBCAT(MAXSUB), SUBPOP(MAXSUB), CATKNT(MAXCAT), CATTH(MAXCAT), N0D0,
2N0DU, N0TH, D0TCAT(NDBTS), D0TCLU(NDBTS)

C*

0011 *

INTEGER ADATES, SUNAZ, ANALST, FLDDAY, D0TDAY, PDATE1, TDATE1

0012 *

INTEGER PDATE2, TDATE2, PDATE3, TDATE3, CATNAM, DISKID, RANDOM, GRID

0013 *

BYTE DELFLG, N0ACQ, S0ILGR, SUNEL, NSTART, NTYPE1, ALP, ALP0

0014 *

BYTE PCTCT, PCTCT0, VAR, VAR0, DLABEL, TYPE

0015 *

COMMON/C0M2/ISEQ, DELFLG, N0ACQ, ADATES(2, MAXACD), S0ILGR(MAXACD),
1SUNEL(MAXACD), SUNAZ(MAXACD), IMDATE(2), ANALST(5), FLDDAY(2),
2D0TDAY(2), NSTART, NTYPE1, PDATE1(2), TDATE1(2), PDATE2(2), TDATE2(2),
3PDATE3(2), TDATE3(2), N0CAT, CATNAM(MAXCAT), ALP(MAXCAT), ALP0,
4 PCTCT(MAXCAT), PCTCT0, VAR(MAXCAT), VAR0

C*

0016 *

INTEGER EFLAG1, EFLAG2, EFLAG3, EFLAG4, EFLAG5, UFLAG1, UFLAG2, UFLAG3,
1UFLAG4

0017 *

INTEGER PFLAG, DSKMNT

0018 *

COMMON/C0M3/PFLAG, DSKMNT, EFLAG1, EFLAG2, EFLAG3, EFLAG4, EFLAG5, UFLAG1,
1, UFLAG2, UFLAG3, UFLAG4, NEWLAB(MAXSUB)

C*

0019 *

INTEGER TX1, TY1, TX2, TY2, ACDISP, G, B, DTWIND, D0TARY, GMIN, GMAX, FUL

0020 *

INTEGER SPWIND, CLAWND, CLUWND

0021 *

COMMON/C0M4/TX1, TY1, TX2, TY2, IX1, IY1, IX2, IY2, ACDISP(2), I11(4), G(4),
1B(4), DTWIND(5, N0DTWD), SPWIND(5, N0SPWD), IHWIND(4), NUMD0T,
2D0TARY(NDBTS), GMIN, GMAX, FUL(2, 7), CLAWND(8), CLUWND(8)

0022 *

COMMON/C0M5/DISKID, RANDOM(NDBTS), GRID(NDBTS), DLABEL(NDBTS),
1TYPE(NDBTS), RELOC

0023

REAL THRESH, DIST

0024

DIMENSION COND(MAXSUB)

0025

BYTE W(74), DUM2

0026

DATA THRESH /15.0/

0027

ISET=0

0028

REWIND 1

0029

CONTINUE

10

C
C
C
C
C

DISPLAY DEFAULT THRESHOLD VALUE

USER MAY PROVIDE NEW THRESHOLD VALUE

0030

WRITE(6, 810) THRESH

CENDIT.FTN

/TR:BLOCKS/NR

0031 CALL OUTPUT(7)

0032 READ(6,800) W

0033 CALL FRONT(W,74)

0034 IF(W(1).EQ.' ') GO TO 20

0035 IF(W(1).EQ.'X') GO TO 777

0036 IF(W(1).EQ.'B') GO TO 10

0037 IPT=0

0038 CALL FFFPI(IPT,W,74,THRESH)

C
C
C

CHECK IF NEW THRESHOLD VALUE IS VALID

0039 IF(THRESH.GE.0.0.AND.TRESH.LE.295.0) GO TO 20

0040 WRITE(6,820)

0041 GO TO 10

0042 20 CONTINUE

0043 PT=1

0044 READ(7,PT)

C
C
C

FIND THE CONDITIONAL CLUSTERS

0045 DO 30 I=1,NBSUB

0046 PT=PT+1

0047 CEND(I)=1

0048 READ(7,PT,END=40)DUM1,DUM2,DIST

0049 IF(DIST.GT.THRESH) CEND(I)=1

0050 30 CONTINUE

0051 40 CONTINUE

0052 ISET=1

0053 777 CONTINUE

0054 RETURN

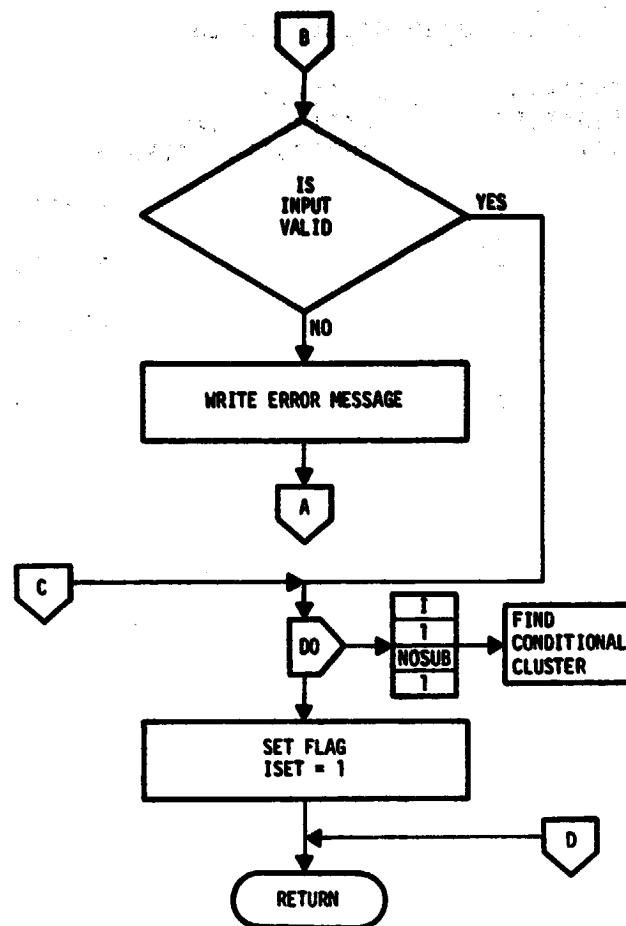
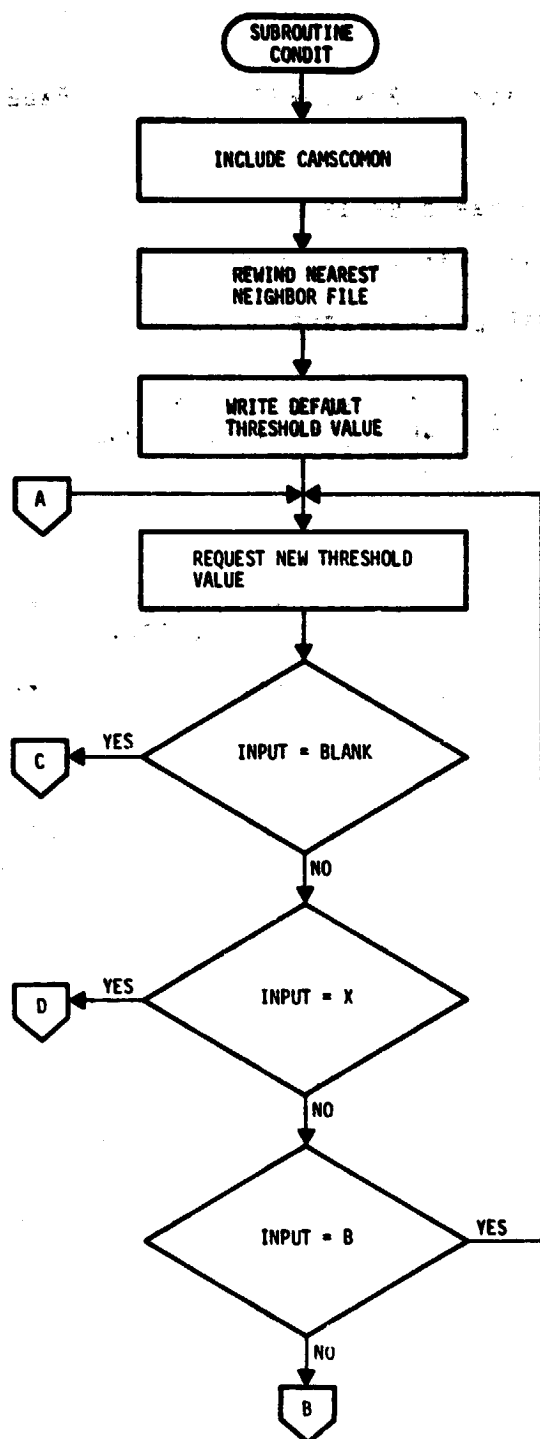
0055 800 FORMAT(74A1)

0056 810 FORMAT('S THRESHOLD DEFAULT = 1,F5,1,1 >1)

0057 820 FORMAT('/ THRESHOLD INPUT INVALID = TRY AGAIN!)

0058 END

15.13 SUBROUTINE CONDIT



ORIGINAL PAGE 1
OF POOR QUALITY

15.14 SUBROUTINE MIXDIS

HPFTRAN IV-PLUS V02=04

09156112

29-JUN-77

PAGE 1

MIXDIS.FTN

/TR:BLOCKS/HR

0001

SUBROUTINE MIXDIS

C
C
C
C
C
C
C
C
C
C

MIXED CLUSTER MAP DISPLAY

SOURCE PROGRAM [131,140]MIXDIS.FTN

WRITTEN BY GERALD CHAMPAGNE

THIS PROGRAM FINDS THE MIXED CLUSTERS
AND PROVIDES FOR THEIR DISPLAY OF THOSE
CLUSTERS AND THE CATEGORIES

0002

IMPLICIT INTEGER(A=2)

0003

INCLUDE '[300,3]CAMSCOMON,INC'

0004 *

INCLUDE 'SYIC300,3]CAMSPARAM,INC'

0005 *

PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NL[N=117,MAXPLD=90

0006 *

1,MAXV=11,NDBTS=209,DLSP[P=10,DSK[P=10,MAXACD=6,MAXACC=4,

0007 *

2NBSPWD=6,NBDTHD=10

0008 *

EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,IX1),(C5,DISKID)

0009 *

INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)

0010 *

C*

0011 *

INTEGER ACDATE,SUBCAT,SUBPOP,CATKNT,CATTH

0012 *

BYTE CHNVEC,NBCHAN,NBSUB,DBTCAT,DBTCLU

0013 *

COMMON/COM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NBCHAN,NBSUB,

0014 *

1SUBCAT(MAXSUB),SUBPOP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NDB,

0015 *

2NBDU,NBTH,DBTCAT(NDBTS),DBTCLU(NDBTS)

0016 *

C*

0017 *

INTEGER ADATES,SUNAE,ANALST,FLDDAY,DBTDAY,PDATE1,TDATE1

0018 *

INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDOM,GRID

0019 *

BYTE DELFLG,NBACQ,SOLGR,SUNEL,NSTART,NTYPE1,ALP,ALPB

0020 *

BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE

0021 *

COMMON/COM2/ISEG,DEFLG,NBACQ,ADATES(2,MAXACD),SOLGR(MAXACD),

0022 *

1SUNEL(MAXACD),SUNAE(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),

0023 *

2DBTDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),

0024 *

3PDATE3(2),TDATE3(2),NBACQ,CATNAM(MAXCAT),ALP(MAXCAT),ALPB,

0025 *

4 PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0

0026 *

C*

0027 *

INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,

0028 *

1UFLAG4

0029 *

INTEGER PFLAG,DSKMNT

0030 *

COMMON/COM3/PFLAG,DSKMNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,

0031 *

1,UFLAG2,UFLAG3,UFLAG4,NEULAB(MAXSUB)

0032 *

C*

0033 *

INTEGER TX1,TY1,IX2,TY2,ACDISP,G,B,DTWIND,DBTARY,GMIN,GMAX,FUL

0034 *

INTEGER SPWIND,CLAWND,CLUWND

0035 *

COMMON/COM4/TX1,TY1,IX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I1(4),G(4),

0036 *

1B(4),DTWIND(9,NBDTHD),SPWIND(9,NBSPWD),IMWIND(4),NUMDBT,

0037 *

2DBTARY(NDBTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)

0038 *

COMMON/COM5/DISKID,RANDOM(NDBTS),GRID(NDBTS),DLABEL(NDBTS),

0039 *

1TYPE(NDBTS),RELOC

0040 *

COMMON /LBCOM2/CHASK

0041 *

COMMON /ZBOM/IC(4),TC(4),IX,IY,IX,TY,MX,MY

0042 *

COMMON /FATAL/ZB,RR

0043 *

DIMENSION IX(512),IY(512),IX(512),IY(512)

0044 *

DIMENSION CHASK(60),CBORD(4)

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PAGE 2

```
DIMENSION MIX(MAXSUB)
BYTE W(74), ATIME(8)
CALL OUTPUT(27,12)
CALL IDATE(MM,DD,YY)
CALL TIME(ATIME)
```

```
WRITE(6,820) MM,DD,YY,ATIME
WRITE(6,810)
```

```
IF(FLAG4,NE.1) WRITE(6,A90)
IF(FLAG4,NE.1) RETURN
IFLG=2
CONTINUE
```

```
CALL GETC00(IC,TC,ISET)
IF(ISET,EQ,0) GO TO 777
DO 15 I=1,N0SUB
    CMASK(I)=0
CONTINUE
```

```
CALL 20000M(IC(1),IC(2),IC(3),IC(4),TC(1),TC(2),TC(3),TC(4),
IX,IY,IX,IV,DX2,DY2,MX,MY,DX)
IF(20,EO,1) GO TO 10
DO 25 I=1,8
  IF(I,LE,4) CLUWND(I)=TC(I)
  IF(I,LE,4) GO TO 25
  CLUWND(I)=IC(I-4)
CONTINUE
```

```
CALL MIXED(MIX,ISET)
IF(ISET,EQ,0) GO TO 777
CALL OUTPUT(27,12)
```

```
WRITE(6,830)
GO TO 35
WRITE(6,840)
CALL OUTPUT(7)
READ(6,800) W
```



```

FORTRAN IV-PLUS V02-04      09156112      29-JUN-77      PAGE 3
MIXDIS,FTN      /TRIBLOCKS/WR
0059      CALL FRONT(W,74)
0060      IF(W(1),EQ,'1') GO TO 40
0061      IF(W(1),EQ,'1') CALL LIST2(MIX,IFLG)
0062      IF(W(1),EQ,'1') GO TO 30
0063      IF(W(1),EQ,'2') CALL CATTHM
0064      IF(W(1),EQ,'2') GO TO 30
0065      IF(W(1),EQ,'3') CALL CLUTHM
0066      IF(W(1),EQ,'3') GO TO 30
0067      IF(W(1),EQ,'4') CALL CLABEL
0068      IF(W(1),EQ,'4') GO TO 30
0069      IF(W(1),EQ,'X') GO TO 60
0070      WRITE(6,880)
0071      GO TO 30
0072      CONTINUE

      C
      C
      C      WRITE CLUSTER ASSIGNMENTS TO THEME

0073      CALL THRITE

      C
      C
      C      EXIT OR RESTART

0074      60      WRITE(6,870)
0075      CALL OUTPUT(7)
0076      READ(6,800) W
0077      CALL FRONT(W,74)
0078      IF(W(1),EQ,'R') GO TO 10
0079      IF(W(1),EQ,'X') GO TO 777
0080      WRITE(6,880)
0081      GO TO 60
0082      777      CONTINUE
0083      RETURN
0084      800      FORMAT(74A1)
0085      810      FORMAT(/10X,'MIXED CLUSTER MAP DISPLAY/MAY 1977')
0086      820      FORMAT(/40X,'DATE:  ',12,'/',12,'/',12,
      1          /40X,'TIME:  ',8A1)
0087      830      FORMAT(/' USER OPTIONS ARE',/
      1          ' 1 = LIST OF CLUSTERS, CATEGORIES, AND MIXED CLUSTERS',/
      2          ' 2 = CATEGORY TO THEME ASSIGNMENT',/
      3          ' 3 = CLUSTER TO THEME ASSIGNMENT',/
      4          ' 4 = CLUSTER LABEL CHANGES',/
      5          ' X = EXIT',/
      6          ' CR ... FOR CONTINUE',/
      7          'S ENTER OPTION >')
0088      840      FORMAT(/' USER OPTIONS ARE',/
      1          ' 1 = LIST, 2 = CAT TO THM, 3 = CLU TO THM, 4 = LAB CHANGE',/
      2          ' E(X)IT, CR',/
      3          'S ENTER OPTION >')
0089      860      FORMAT(/'S CLUSTER LABEL CHANGES ? (YES OR CR >')
0090      870      FORMAT('S (R)ESTART OR E(X)IT >')
0091      880      FORMAT(' INPUT ERROR ..., TRY AGAIN')
0092      890      FORMAT(' EFLAG4 IS NOT SET TO 1',/
      1          ' NEAREST NEIGHBOR DATA NOT AVAILABLE')
0093      END

```


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15.14 SUBROUTINE MIXDIS

A flow chart for this subroutine is not available.

~~179~~

15.15 SUBROUTINE LIST2

HFORTRAN IV-PLUS V02=04

09156132

29-JUN-77

PAGE 1

LIST2.FTN

/TR:BLOCKS/HR

0001 SUBROUTINE LIST2(DATA,IFLG)

C
C
C
C
CTHIS PROGRAM DISPLAYS ON ??? THE
CLUSTERS, CATEGORIES, AND CONDITIONAL
OR MIXED CLUSTERS

```

0002      IMPLICIT INTEGER (A-E)
0003      INCLUDE 'C300,3JCAMSCOMON,INC'
0004      INCLUDE 'SYIC300,3JCAMSPARAM,INC'
0005      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=90
      1,MAXV=11,NDBTS=209,DLSP=10,DSSKIP=10,MAXACD=6,MAXACC=4,
      2NDBSPWD=6,NDBTHD=10
0006      EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,TX1),(C5,DISKID)
0007      INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)
      C
0008      INTEGER ACDATE,SUBCAT,SUBPOP,CATKNT,CATTH
0009      BYTE CHNVEC,NBCHAN,NBSUB,DBTCAT,DBTCU
0010      COMMON/COM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NBCHAN,NBSUB,
      1SUBCAT(MAXSUB),SUBPOP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NBD0,
      2NBDU,NBTH,DBTCAT(NDBTS),DBTCU(NDBTS)
      C
0011      INTEGER ADATES,SUNAZ,ANALST,FLDDAY,DBTDAY,PDATE1,TDATE1
0012      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RAND0M,GRID
0013      BYTE DELFLG,NBACO,S0ILOR,SUNEL,NSTART,NTYPE1,ALP,ALP0
0014      BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE
0015      COMMON/COM2/ISEG,DELFLG,NBACO,ADATES(2,MAXACD),S0ILOR(MAXACD),
      1SUNEL(MAXACD),SUNAZ(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),
      2DBTDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
      3PDATE3(2),TDATE3(2),NBCT,CATNAM(MAXCAT),ALP(MAXCAT),ALP0,
      4      PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0
      C
0016      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
      1UFLAG4
0017      INTEGER PFLAG,DSKMNT
0018      COMMON/COM3/PFLAG,DSKMNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,
      1,UFLAG2,UFLAG3,UFLAG4,NEWLAB(MAXSUB)
      C
0019      INTEGER TX1,TY1,TX2,TY2,ACDISP,G,B,DTHIND,DBTARY,GMIN,GMAX,FUL
0020      INTEGER SPWIND,CLAWND,CLUWND
0021      COMMON/COM4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I11(4),Q(4),
      1B(4),DTHIND(5,NDBTHD),SPWIND(5,NDBSPWD),IMWIND(4),NUMDBT,
      2DBTARY(NDBTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)
0022      COMMON/COM5/DISKID,RAND0M(NDBTS),GRID(NDBTS),DLABEL(NDBTS),
      1TYPE(NDBTS),RELOC
0023      DIMENSION DATA(MAXSUB)
0024      CALL OUTPUT(27,12)
0025      N=NBSUB/20
      C
      C
      C
      CALCULATE THE NUMBER OF LINES NEEDED FOR DISPLAY
0026      IF(NBSUB.NE,N=20) N=N+1
0027      IF(N.GT,3) N=3
0028      IBEQ=1
0029      IEND=2J
0030      IF(IEND.GT,NBSUB) IEND=NBSUB
0031      DO 10 I=1,N

```


C
C
C

DISPLAY ON T11

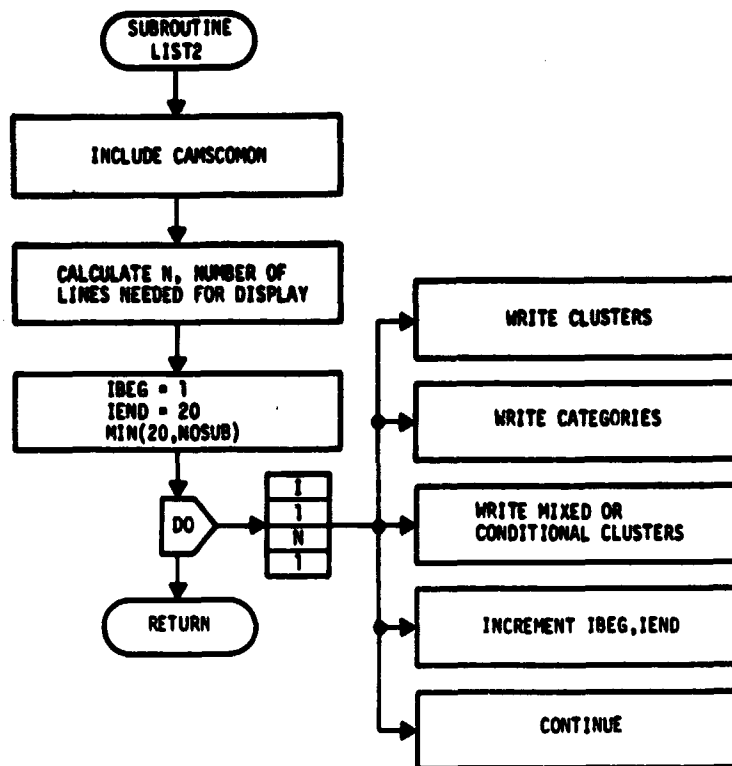
```

0032      WRITE(6,800) (J,J=IBEG, IEND)
0033      WRITE(6,810) (CATNAM(NEWLAB(J)),J=IBEG, IEND)
0034      IF(IFLG.EQ.1) WRITE(6,820) (DATA(J),J=IBEG, IEND)
0035      IF(IFLG.EQ.2) WRITE(6,830) (DATA(J),J=IBEG, IEND)
0036      IBEG=IBEG+20
0037      IEND=IEND+20
0038      IF(IEND.GT.NBSUB) IEND=NBSUB
0039      10  CONTINUE
0040      RETURN
0041      800  FORMAT(/' CLUSTER ',20I3)
0042      810  FORMAT(' CATEGORY ',20(1X,A2))
0043      820  FORMAT(' CONDITION ',20(1X,A2)/)
0044      830  FORMAT(' MIXED ',20(1X,A2)/)
0045      END

```

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15.15 SUBROUTINE LIST2



15-00

15.16 SUBROUTINE MIXED

HFORTRAN IV=PLUS V02=04

09156147

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PAGE 1

MIXED,FTN

/TRIBLOCKS/WR

0001

SUBROUTINE MIXED(MIX, ISET)

C
C
C
C

THIS PROGRAM DETERMINES WHICH
OF THE CLUSTERS ARE MIXED

0002

IMPLICIT INTEGER(A=2)

0003

INCLUDE '[(300,3)CAMSCOMMON,INC'

0004 *

INCLUDE 'SYI[(300,3)CAMSPARAM,INC'

0005 *

PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=50,
1,MAXV=11,NDOTS=209,DLSP=10,DSSKIP=10,MAXACD=6,MAXACC=4,
2NOSPWD=6,NDTHD=10

0006 *

EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,IX1),(C5,DISKID)

0007 *

INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)

C*

0008 *

INTEGER ACDATE,SUBCAT,SUBPOP,CATKNT,CATTH

0009 *

BYTE CHNVEC,NCHAN,NOSUB,DOTCAT,DOTCLU

0010 *

COMMON/COM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NCHAN,NOSUB,
1SUBCAT(MAXSUB),SUBPOP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NDDO,
2NDDU,NDTH,DOTCAT(NDOTS),DOTCLU(NDOTS)

C*

0011 *

INTEGER ADATES,SUNAZ,ANALST,FLDDAY,DOTDAY,PDATE1,TDATE1

0012 *

INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDOM,GRID

0013 *

BYTE DELFLG,NBACO,SOLGR,SUNEL,NSTART,NTYPE1,ALP,ALP0

0014 *

BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE

0015 *

COMMON/COM2/ISEG,DEFLG,NBACO,ADATES(2,MAXACD),SOLGR(MAXACD),
1SUNEL(MAXACD),SUNAZ(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),
2DOTDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
3PDATE3(2),TDATE3(2),NBACAT,CATNAM(MAXCAT),ALP(MAXCAT),ALP0,
4 PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0

C*

0016 *

INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,

0017 *

1UFLAG4

0018 *

INTEGER PFLAG,DSKNT

0019 *

COMMON/COM3/PFLAG,DSKNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,
1,UFLAG2,UFLAG3,UFLAG4,NEWLAB(MAXSUB)

C*

0019 *

INTEGER TX1,TY1,TX2,TY2,ACDISP,G,B,DTWIND,DOTARY,GMIN,GMAX,FUL

0020 *

INTEGER SPWIND,CLAWND,CLUWND

0021 *

COMMON/COM4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I1(4),G(4),
1B(4),DTWIND(5,NDDTHD),SPWIND(5,NOSPWD),IMWIND(4),NUMDOT,
2DOTARY(NDOTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)

0022 *

COMMON/COM5/DISKID,RANDOM(NDOTS),GRID(NDOTS),DLABEL(NDOTS),
1TYPE(NDOTS),RECLAC

0023

REAL THRESH, DIST

0024

REAL DDIFF

0025

DIMENSION MIX(MAXSUB)

0026

DIMENSION DOTN(NDOTS),DIST(NDOTS)

0027

BYTE W(74),DLAB(NDOTS)

0028

DATA THRESH /0.5/

0029

ISET=0

0030

REWIND 1

0031

CONTINUE

10
C
C
C
C

DISPLAY DEFAULT THRESHOLD VALUE

USER MAY PROVIDE NEW THRESHOLD VALUE

~~183~~

183

C-3


```

0032      WRITE(6,810) THRESH
0033      CALL OUTPUT(7)
0034      READ(6,800) W
0035      CALL FRONT(W,74)
0036      IF(W(1).EQ.' ') GO TO 20
0037      IF(W(1).EQ.'X') GO TO 777
0038      IF(W(1).EQ.'B') GO TO 10
0039      IPT=0
0040      CALL FFFPI(IPT,W,74,THRESH)

      C
      C
      C
      CHECK IF NEW THRESHOLD VALUE IS VALID

0041      IF(THRESH.GE.0.0.AND.THRESH.LE.255.0) GO TO 20
0042      WRITE(6,820)
0043      GO TO 10
0044      20  CONTINUE
0045      PT=1
0046      READ(7,PT) KNN,ND

      C
      C
      C
      FIND THE MIXED CLUSTERS

0047      DO 40 I=1,NOSUB
0048          PT=PT+1
0049          MIX(I)=1
0050          READ(7,PT,END=50)(DOTN(K),DLAB(K),DIST(K),K=1,ND)
0051          DO 30 J=2,ND
0052              IF(DLAB(1).EQ.DLAB(J)) GO TO 30
0053              DDIFF=ABS(DIST(1)-DIST(J))
0054              IF(DDIFF.LE.THRESH) MIX(I)=1
0055              IF(DDIFF.LE.THRESH) GO TO 40
0056          30  CONTINUE
0057          40  CONTINUE
0058          50  CONTINUE
0059          ISET=1
0060          777 CONTINUE
0061          RETURN
0062          800 FORMAT(74A1)
0063          810 FORMAT('S THRESHOLD DEFAULT = ',F5.1,' >')
0064          820 FORMAT('/ THRESHOLD INPUT INVALID = TRY AGAIN')
0065          830 FORMAT('/ LABELS FOR ',I3,' ALL THE SAME')
0066          END
    
```


15.16 SUBROUTINE MIXED

A flow chart of this subroutine can be found in volume 1,
page 3-237.

16. CLASSIFICATION MAP DISPLAY/RECOMPUTE PROPORTIONS REPROP

HF0RTRAN IV-PLUS V02-04

1011146

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PAGE 1

REPROP,FTN

/TRIAL/WR

THIS PROGRAM RECOMPUTES PROPORTIONS FOR ALL AVAILABLE
CATEGORIES AFTER CLUSTERS HAVE BEEN RELABELLED.
OPTIONALLY THE NEW CATEGORY COUNTS WILL REPLACE THE
EXISTING ONES.

CC

C

PROGRAM NAME REPROP,FTN

C REPROP,OBJ

C REPROP,TSK

CC

C

WRITTEN BY H.G.THADANI

C PROJECT LEADER S.G.THADANI

CC

C

COMPUTER POP 11/45

C LANGUAGE FORTRAN 4 PLUS

C

CC

C RECOMPUTE PROPORTIONS APPLICATION PROGRAM

0001

IMPLICIT INTEGER(A-Z)

0002

INCLUDE 'SY1(300,3)CAMSCOMON.INC'

0003 •

INCLUDE 'SY1(300,3)CAMSPARAM.INC'

0004 •

PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=50
1,MAXV=11,NDBTS=209,DLSKIP=10,DSSKIP=10,MAXACD=6,MAXACC=4,
2N0SPWD=6,N0DTWD=10

0005 •

EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,TX1),(C5,DISKID)

0006 •

INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)

• C•

0007 •

INTEGER ACDATE,SUBCAT,SURPOP,CATKNT,CATTH

0008 •

BYTE CHNVEC,N0CHAN,N0SUB,DATCAT,D0TCLU

0009 •

COMMON/C0M1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),N0CHAN,N0SUB,
1SURCAT(MAXSUB),SUBPOP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),N0D0,
2N0DU,N0TH,DATCAT(NDBTS),D0TCLU(NDBTS)

• C•

0010 •

INTEGER ADATES,SUNAZ,ANALST,FLDDAY,D0TDAY,PDATE1,TDATE1

0011 •

INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RAND0M,GRID

0012 •

BYTE DELFLG,N0ACQ,S0ILGR,SUNEL,NSTART,NTYPE1,ALP,ALP0

0013 •

BYTE PCTCT,PCTCT0,VAR,VAR0,DLAREL,TYPE

0014 •

COMMON/C0M2/ISEG,DEFLG,N0ACQ,ADATES(2,MAXACD),S0ILGR(MAXACD),
1SUNEL(MAXACD),SUNAZ(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),
2D0TDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
3PDATE3(2),TDATE3(2),N0CAT,CATNAM(MAXCAT),ALP(MAXCAT),ALP0,
4 PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0

• C•

0015 •

INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
1UFLAG4

0016 •

INTEGER PFLAG,DSKMNT

0017 •

COMMON/C0M3/PFLAG,DSKMNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,
1,UFLAG2,UFLAG3,UFLAG4,NEWLAB(MAXSUB)

• C•

0018 •

INTEGER TX1,TY1,TX2,TY2,ACDISP,G,B,D0TWIND,D0TARY,GMIN,GMAX,FUL

0019 •

INTEGER SPWIND,CLAWND,CLUWND

0020 •

COMMON/C0M4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I11(4),G(4),
1R(4),D0TWIND(5,N0DTWD),SPWIND(5,N0SPWD),IMWIND(4),NUMD0T,
2D0TARY(NDBTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)


```

REPROB.FTN      /TRIAL/WR
0021 *          COMMON/COM5/DISKID,RANDOM(NDOTS),GRID(NDOTS),DLABEL(NDOTS),
*              1TYPE(NDOTS),RECL0C
0022              PARAMETER MAX1=8
0023              REAL RECPCT(MAXCAT),PERD0,PERDU,PERTH,PERUND
0024              BYTE WMS(8),W(74),NV,VERTEX,L0WHI,8FCLUS(NPIX),
1              8FCLAS(NPIX),FLDINT(MAXFLD),CHAN,LABEL
0025              BYTE MAX,MIN,XA,XB
0026              COMMON/RCP/ ICAKNT(MAXSUR),IRESUB(MAXSUB),FLDNAM(3,MAXFLD),
1LABEL(MAXFLD),VERTEX(2,MAXV,MAXFLD),NV(MAXFLD),FIELD(2,MAXV),
2L0WHI(2,MAXFLD),FL(MAX1,MAXFLD),FLL(MAX1),DIRCAT(NDOTS),
3  CHAN(16),X,RECPCT,PERD0,PERDU,PERTH,PERUND,
4  NLP,ND0PIX,NDUPIX,NTH,UNID
C              INITIATE TIMING
0027              CALL ATTACH
0028              1 CONTINUE
0029                  CALL ASSIGN(6,'T11')
0030                  CALL ASSIGN(10,'GPI')
0031                  OPEN(UNIT=7,NAME='SY:[300,1]CLASSMAP,TMP',
1 ACCESS='DIRECT',RECORDSIZE=49,TYPE='UNKNOWN')
0032                  OPEN(UNIT=8,NAME='SY:[300,1]CLUSTERMP,TMP',
1 ACCESS='DIRECT',RECORDSIZE=49,TYPE='UNKNOWN')
0033                  LUN=9
0034                  CALL ASSIGN(LUN,'SY:[300,1]FIELDS,TMP')
0035                  II=1
0036                  CALL ELAPSE(II)
C              BEGIN PROCESSING
0037              6 NRESUB=0
0038                  DO 3 I=1,MAXSUR
0039                  ICAKNT(I)=0
C              DETERMINE RELABELLED CLUSTERS
0040                  IF (SUPCAT(I).EQ.NEVLAR(I)) GO TO 2
0041                  IRESUB(I)=1
0042                  GO TO 3
0043              2 IRESUB(I)=0
0044                  NRESUB=NRESUB+1
0045              3 CONTINUE
0046                  NRESUB=MAXSUR-NRESUB
C              WRITE(10,803) N0SUB,NRESUB,MRESUB
0047              803 FORMAT(1X,'N0SUB,NRESUB,MRESUB',3I8/)
C              DISPLAY RELABELLED CLUSTER REPORT
0048                  CALL IDATE(IM,ID,IY)
0049                  CALL TIME(WMS)
0050                  CALL ZUTPUT(27,12)
0051                  OFLAG=EFLAG3
0052                  WRITE(6,4) IM,ID,IY,(WMS(J),J=1,8)
0053              4 FORMAT(51X,'DATE',12,'/',12,'/',12/51X,'TIME',8A1/)
0054                  WRITE(6,5)
0055              5 FORMAT(1X,'RECOMPUTE PROPORTIONS APPLICATION PROGRAM'/
16X,' MAY 1977'/)
C              PRINT USER OPTIONS
0056                  WRITE(6,7)
0057              7 FORMAT(1X,'USER OPTIONS'//1X,'1,RELABELLED CLUSTER REPORT'/1X,
1'2,RECOMPUTE PROPORTIONS REPORT'/
2'/'S TYPE IN SELECTED OPTION >')
0058                  CALL ZUTPUT(7)
0059                  READ(6,8) M

```



```

REPROB,FTN      /TRIAL/WR
0060      8      FORMAT(74A1)
0061      CALL FRNT(W,74)
      C      ANALYSE USER INPUT: VALID OPTIONS ARE 1,2,3,X
0062      IF(W(1),EQ,'X') GO TO 56
0063      IF(W(1),EQ,'1') GO TO 10
0064      IF(W(1),EQ,'2') GO TO 17
      C      PRINT ERROR MESSAGE
0065      WRITE(6,9)
0066      9      FORMAT(/5X,'*** INVALID INPUT,...TRY AGAIN***')
0067      GO TO 6
      C      RELABELLED CLUSTER REPORT,
0068      10      PIGE=0
0069      COUNT=0
0070      FPAGE=0
0071      FIN=0
0072      DO 16 I=1,MAXSUB
0073      15      IF(PIGE,EQ,5) GO TO 95
0074      IF(PIGE,NE,0) GO TO 96
0075      IF(FPAGE,NE,0) GO TO 96
0076      CALL IDATE(1,1D,1Y)
0077      CALL TIME(HMS)
0078      CALL ZUTPUT(27,12)
0079      WRITE(6,4) 1M,1D,1Y,(HMS(J),J=1,8)
0080      11      WRITE(6,77)
0081      77      FORMAT(/10X,'RELABELLED CLUSTER REPORT')
0082      WRITE(6,88)
0083      88      FORMAT(/10X,'CLUSTER ',10X,'OLD LABEL ',10X,'NEW LABEL ')
      C      PAGING CAPABILITY NOW
0084      96      IF(IRESUR(1),EQ,0) GO TO 161
0085      JK=SURCAT(1)
0086      KK=NEWLAB(1)
0087      PIGE=PIGE+1
0088      COUNT=COUNT+1
0089      WRITE(6,91) 1,CATNAM(JK),CATNAM(KK)
0090      91      FORMAT(13X,12,19X,A2,18X,A2)
0091      GO TO 161
0092      95      WRITE(6,12)
0093      12      FORMAT('S TYPE IN E(X)IT,(R)ETURN, OR PAGE (F)ORWARD >')
0094      CALL ZUTPUT(7)
0095      READ(6,8) W
0096      CALL FRNT(W,74)
0097      IF(W(1),EQ,'X') GO TO 56
0098      IF(W(1),EQ,'R') GO TO 6
0099      IF(W(1),EQ,'F',OR,W(1),EQ,' ') GO TO 14
0100      WRITE(6,9)
0101      GO TO 10
0102      14      IF(COUNT,EQ,MRESUM) GO TO 801
0103      PIGE=0
0104      FPAGE=0
0105      IF(FIN,EQ,1) GO TO 10
0106      GO TO 15
0107      801      WRITE(6,802)
0108      802      FORMAT(/1X,'END OF REPORT')
0109      FIN=1
0110      PIGE=0
0111      COUNT=0

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0112      FPAGE=0
0113      GO TO 95
0114      161  FPAGE=1
           C      WRITE(10,804) COUNT,MRESUB
0115      804  FORMAT(/1X,'COUNT,MRESUB',218/)
0116      IF(COUNT.EQ.MRESUB) GO TO 801
0117      16   CONTINUE
           C      RECOMPUTE PROPORTIONS COMPUTATIONS BEGIN HERE
0118      17 IF(MRESUB.NE.MAXSUP) GO TO 22
0119      18 WRITE(6,19)
0120      19 FORMAT(5X,' NO CLUSTERS RELABELLED'/)
           C20  IF(W(1).EQ.'2') GO TO 22
           20   CONTINUE
0121      21   WRITE(6,21)
           21   FORMAT(/'S (R)ECYCLE,(C)ONTINUE OR E(X)IT >')
0122      CALL OUTPUT(7)
0123      READ(6,8) W
0124      CALL FRONT(W,74)
0125      IF(W(1).EQ.'R') GO TO 6
0126      IF(W(1).EQ.'C') GO TO 22
0127      IF(W(1).EQ.'X') GO TO 56
0128      WRITE(6,9)
0129      GO TO 20
0130      C      CHECK FOR EXISTENCE OF CLUSTER/CLASSIFICATION MAPS
0131      22 IF(EFLAG1.EQ.1) GO TO 24
0132      WRITE(6,23)
0133      23 FORMAT(5X,' CLUSTER MAP DOES NOT EXIST'/)
0134      GO TO 20
0135      24 IF(EFLAG2.EQ.1) GO TO 26
0136      WRITE(6,25)
0137      25 FORMAT(5X,' CLASSIFICATION MAP DOES NOT EXIST'/)
0138      GO TO 20
0139      26 IF(DFLAG.EQ.1) GO TO 128
0140      WRITE(6,27)
0141      27 FORMAT(5X,' DO/DU FIELDS NOT AVAILABLE FOR THIS ACQUISITION'/)
0142      DFLAG=1
0143      GO TO 20
0144      C      BEGIN READING CLUSTER/CLASSIFICATION MAP/DO=DU FILES
           C      LINE LOOP BEGINS HERE
0145      128  NOLIN=1
0146      DFLAG=EFLAG3
0147      DO 28 I=1,NDOTS
0148      DIRCAT(I)=0
0149      28  CONTINUE
0150      NDOPX=0
0151      NDUPIX=0
0152      NTH=0
0153      IF(DFLAG.EQ.0) GO TO 35
0154      READ (LUN) NOFLD
0155      DO 29 I=1,NOFLD
0156      READ(LUN) (FLDNAM(I,I),I=1,3),LABEL(I),NV(I),
           1  ((VERTEX(J,K,I),J=1,2),K=1,MAXV)
           C      WRITE(10,900) I,(FLDNAM(I,I),I=1,3)
0157      900  FORMAT(/1X,'FIELD NO., NAME',4X,13,4X,6A1/)
           C      WRITE(10,901) LABEL(I),NV(I),((VERTEX(J,K,I),
           C      1  J=1,2),K=1,MAXV)

```


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 REPR0P,FTN /TRIAL/WR
 0158 901 FORMAT(/1X,'LABEL, NV, VERTICES',4X,15,4X,15,/,
 1 1X,16(1X,14)/)
 0159 29 CONTINUE
 C PIXEL LINE COORDINATES ARE STORED IN BYTES
 C DETERMINE MAX/MIN LINE VALUES
 0160 D0 34 I=1,N0FLD
 0161 MAX=0
 0162 MIN=VERTEX(2,1,1)
 0163 JL=NV(1)
 0164 D0 33 J=1,JL
 0165 IF(VERTEX(2,J,1).GT.MAX) G0 T0 31
 0166 IF(VERTEX(2,J,1).LE.MIN) G0 T0 32
 0167 G0 T0 33
 0168 31 MAX=VERTEX(2,J,1)
 0169 G0 T0 33
 0170 32 MIN=VERTEX(2,J,1)
 0171 33 CONTINUE
 0172 LOWHI(1,1)=MIN
 0173 LOWHI(2,1)=MAX
 0174 34 CONTINUE
 C WRITE(10,904) ((LOWHI(I,J),I=1,2),J=1,N0FLD)
 0175 904 FORMAT(/1X,'LOWHI(1,J), LOWHI(2,J)',4X,(2(14,2X)/))
 C BEGIN PROCESSING A LINE
 0176 D0 52 N0LIN=1,NLIN
 C WRITE(10,9875) N0LIN
 0177 9875 FORMAT(1X,'N0LIN',13/)
 0178 35 READ(7,N0LIN) (BFCLAS(I),I=1,NPIX)
 0179 READ(8,N0LIN) (BFCLUS(I),I=1,NPIX)
 0180 LCHECK=0
 0181 D0 1002 I=DLSKIP,NLIN,DLSKIP
 0182 IF(N0LIN.EQ.I)LCHECK=N0LIN/DLSKIP
 0183 1002 CONTINUE
 0184 IF(DFLAG.EQ.0) G0 T0 415
 0185 D0 36 I=1,MAXFLD
 0186 FLDINT(I)=0
 0187 36 CONTINUE
 0188 K=1
 0189 D0 37 I=1,N0FLD
 0190 IF(N0LIN.LT.LOWHI(1,1).OR,N0LIN.GT.LOWHI(2,1)) G0 T0 37
 0191 FLDINT(K)=I
 0192 K=K+1
 0193 37 CONTINUE
 C WRITE(10,9876)(FLDINT(KK),KK=1,N0FLD)
 0194 9876 FORMAT(1X,'FLDINT',1015/)
 0195 K=1
 0196 3A IF(FLDINT(K).EQ.0) G0 T0 41
 0197 I=FLDINT(K)
 0198 JUL=NV(I)
 0199 D0 39 J=1,JUL
 0200 XA=VERTEX(1,J,1)
 0201 XB=VERTEX(2,J,1)
 0202 FIELD(1,J)=IRYTE(0,XA)
 0203 FIELD(2,J)=IRYTE(0,XB)
 0204 30 CONTINUE
 C WRITE(10,9930) ((FIELD(I,JJ),I=1,2),JJ=1,JUL)
 0205 9930 FORMAT(/1X,'FIELD(I,JJ)',4X,/,1X,2014/)

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0206      CALL FDLINT(FIELD,JUL,FLL,NOLIN,NSAMP,JJ)
0207      DO 40 KK=1,MAX1
0208      FL(KK,1)=FLL(KK)
0209      40 CONTINUE
C        WRITE(10,9873) ((FL(KK,1),KK=1,MAX1))
0210      9873  FORMAT(/1X,'FL(1,1)',4X,10(2X,14))
0211      K=K+1
0212      GO TO 3A
0213      41 CONTINUE
C        WRITE(10,9931)
0214      9931  FORMAT(/1X,'DEBUG PRINT AFTER 41'/)
C        FIELD INTERCEPT INFORMATION IS NOW IN FL(MAX1,MAXFLD)
C        PIXEL LOOP BEGINS HERE
0215      415 DO 51 K=1,NPIX
0216      IF(LCHECK,EQ,0) GO TO 1003
0217      CHECK=0
0218      DO 1001 I=DSSKIP,NPIX,DSSKIP
0219      IF(K,EQ,I) CHECK=(LCHECK+1)*NPIX/DSSKIP+K/DSSKIP
0220      1001 CONTINUE
0221      1003  L=1
0222      42 IF(FLDINT(L),EQ,0) GO TO 4A
0223      I=FLDINT(L)
0224      IF(FL(2,I),NE,0) GO TO 45
0225      IF(FL(1,I),EQ,0) GO TO 43
0226      IF(K,EQ,FL(1,I)) GO TO 46
0227      L=L+1
0228      GO TO 42
0229      43 WRITE(6,44)
0230      44 FORMAT(5X,'FDLINT CONTRADICTS LOWHI....ERROR..EXIT'/)
0231      GO TO 56
0232      45 IF(K,GE,FL(1,I),AND,K,LE,FL(2,I)) GO TO 46
0233      IF(K,GE,FL(3,I),AND,K,LE,FL(4,I)) GO TO 46
0234      IF(K,GE,FL(5,I),AND,K,LE,FL(6,I)) GO TO 46
0235      IF(K,GE,FL(7,I),AND,K,LE,FL(8,I)) GO TO 46
0236      L=L+1
0237      GO TO 42
0238      4A IF(LABEL(I),EQ,-1) GO TO 47
0239      NDUPIX=NDUPIX+1
0240      IF(CHECK,NE,0) DOTCAT(CHECK)=+2
0241      GO TO 51
0242      47 NDUPIX=NDUPIX+1
0243      IF(CHECK,NE,0) DOTCAT(CHECK)=+1
0244      GO TO 51
0245      4A CONTINUE
CC      DO/DU PROCESSING COMPLETED AT THIS POINT,PIXEL K IS NOT DO/DU
0246      DO 49 J=1,NDSUR
0247      IF(IRESUB(J),NE,1) GO TO 49
0248      IF(BFCLAS(K),NE,J) GO TO 49
0249      KK=BFCLAS(K)
0250      LL=SURCAT(J)
0251      IF(KK,EQ,0) CATTH(LL)=CATTH(LL)+1
0252      BFCLAS(K)=NEWLAB(J)
0253      KK=BFCLAS(K)
0254      ICAKNT(KK)=ICAKNT(KK)+1
0255      IF(CHECK,EQ,0) GO TO 51
0256      DOTCAT(CHECK)=KK

```


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0257      GO TO 51
0258      49 CONTINUE
0259      IF(BFCLAS(K).NE.0) GO TO 50
0260      IF(CHECK.NE.0) DATCAT(CHECK)=3
0261      NTH=NTH+1
0262      GO TO 51
0263      50 KK=BFCLAS(K)
0264      ICAKNT(KK)=ICAKNT(KK)+1
0265      51 CONTINUE
0266      WRITE(7,NMLIN) (BFCLAS(I),I=1,NPIX)
0267      52 CONTINUE
C        PIXEL COUNTS COMPLETE BEGIN PROPORTION COMPUTATIONS
0268      X=0
0269      DO 53 I=1,MAXCAT
0270      IF(CATNAM(I).NE.'X') GO TO 53
0271      X=I
0272      53 CONTINUE
0273      NLP=NLIN*NPIX
0274      IF(X.EQ.0) GO TO 153
0275      UNID=NLP-ICAKNT(X)-NDUPIX-NTH
0276      GO TO 154
0277      153 UNID=NLP-NDUPIX-NTH
0278      154 DO 54 I=1,MAXCAT
0279      RECPCT(I)=100.*(FLOAT(ICAKNT(I))/FLOAT(UNID))
0280      54 CONTINUE
0281      IF(X.EQ.0) GO TO 155
0282      RECPCT(X)=(FLOAT(ICAKNT(X))/FLOAT(NLP))*100.
0283      155 PERDU=(FLOAT(NDUPIX)/FLOAT(NLP))*100.
0284      PERDU=(FLOAT(NDUPIX)/FLOAT(NLP))*100.
0285      PERTH=(FLOAT(NTH)/FLOAT(NLP))*100.
0286      PERUND=(FLOAT(UNID)/FLOAT(NLP))*100.
C        PROPORTION COMPUTATIONS COMPLETE PRINT REPORT
C        COPY RECOMPUTED PROPORTIONS INTO GLOBAL COMMON.
0287      DO 55 I=1,MAXCAT
0288      CATKNT(I)=ICAKNT(I)
0289      55 CONTINUE
0290      NDCM=NDUPIX
0291      NDCU=NDUPIX
0292      NDCN=NTH
C        PRINT REPORT,,CALL RECPRN(7).
0293      CALL RECPRN(7)
0294      IF(Z.EQ.0) GO TO 56
0295      GO TO 6
0296      56 WRITE(6,57)
0297      57 FORMAT(' TYPE E(X)IT OR (R)ECYCLE >')
0298      CALL OUTPUT(7)
0299      READ(6,8) W
0300      CALL FRONT(W,74)
0301      IF(W(1).EQ.'X') GO TO 59
0302      GO TO 6
0303      59 II=2
0304      CALL ELAPSE(II)
0305      INCLUDE 'SYI(300,3)CAMSAVE,INC'
0306      OPEN(UNIT=1,NAME='(300,1)GLOBAL.TMP;1',FORM='UNFORMATTED',
      *
      *
      * 1 TYPE='UNKNOWN',ERR=9999)
0307      WRITE(1)C1

```


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10111146

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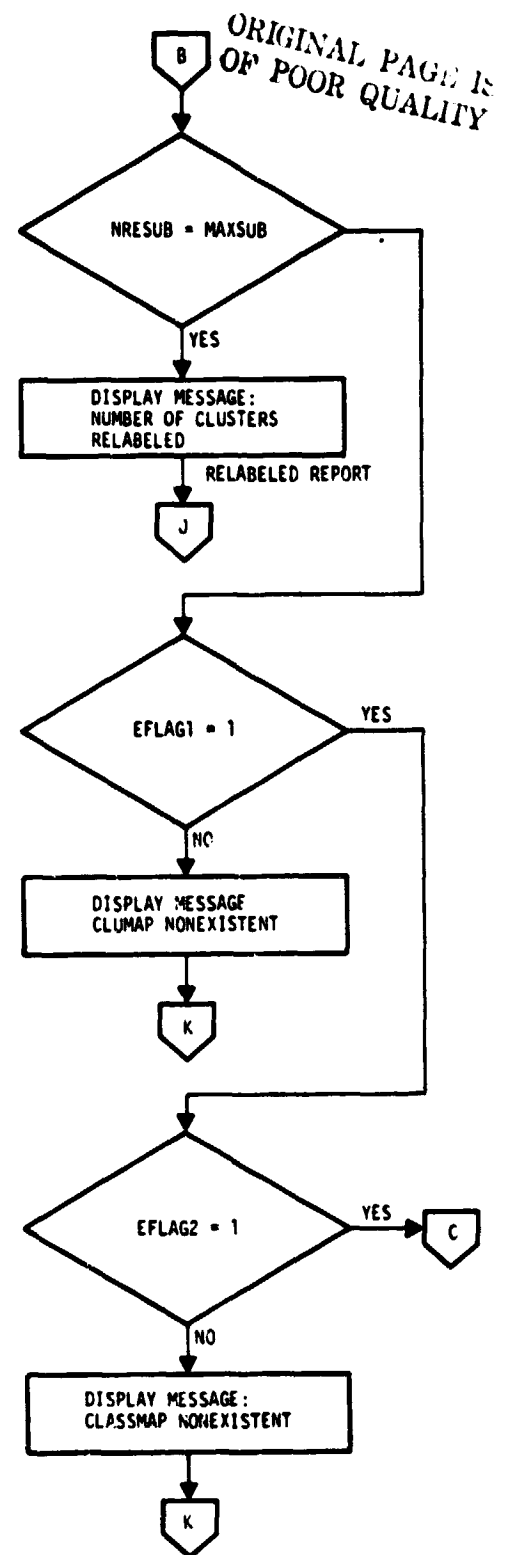
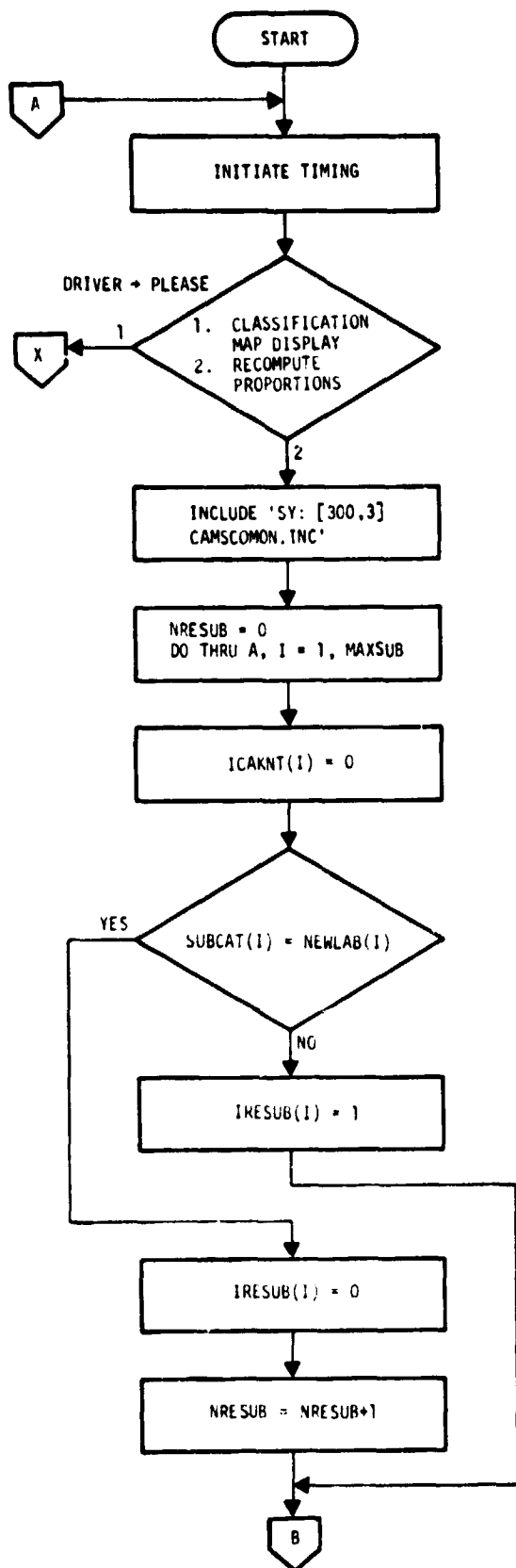
PAGE 8

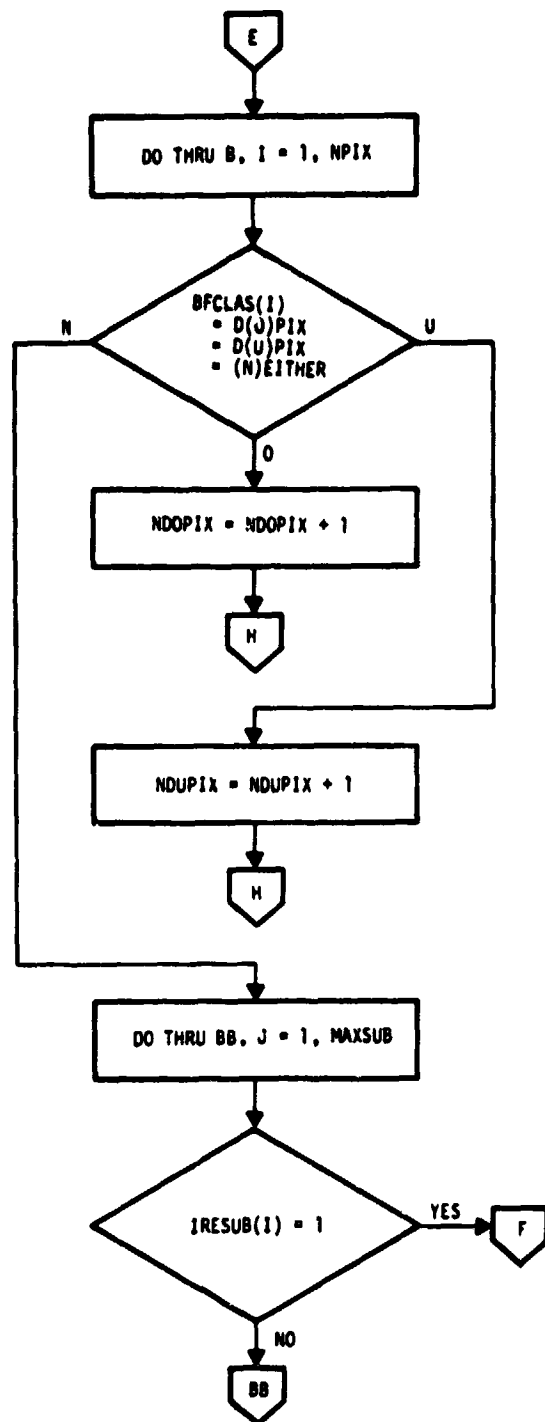
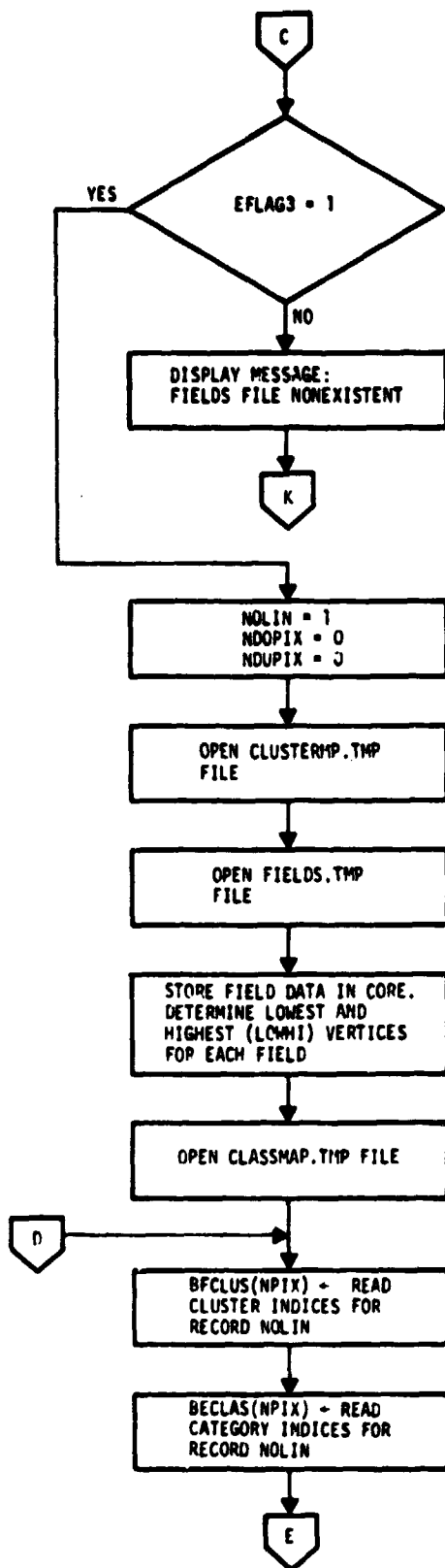
REPROB,FTN

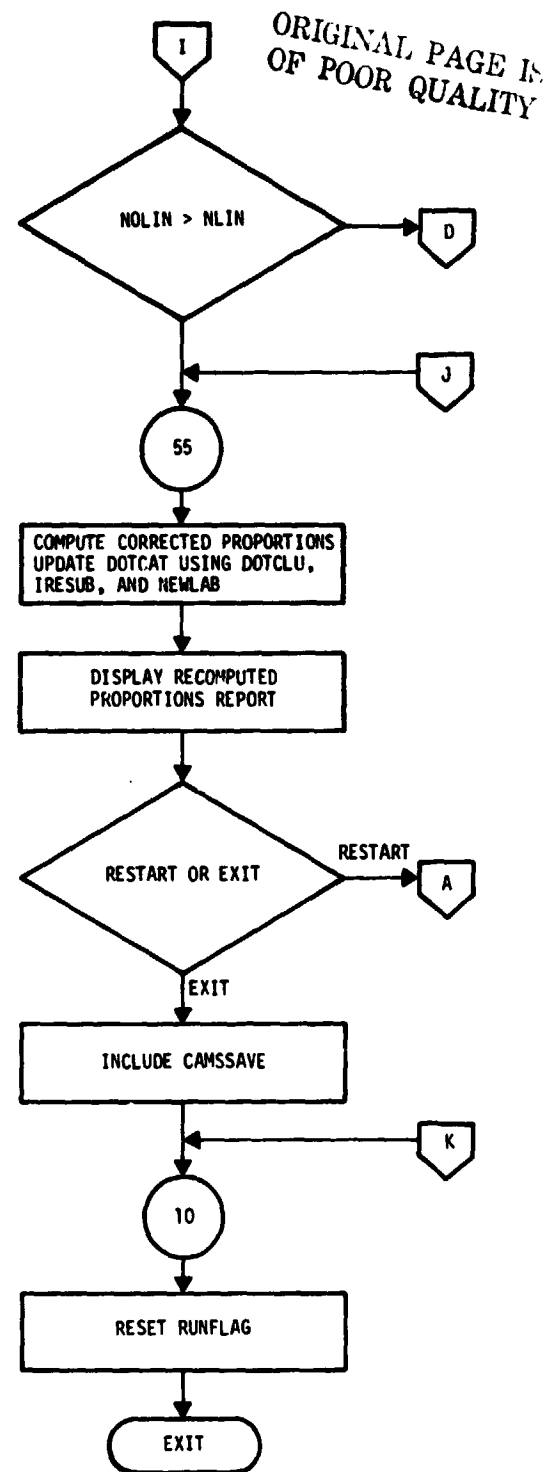
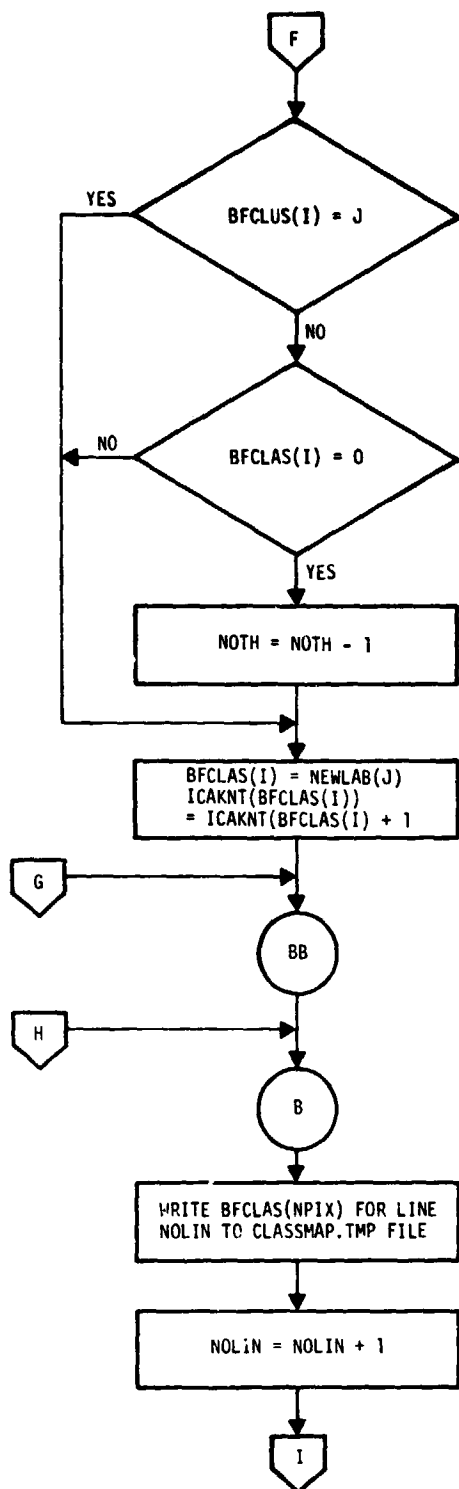
/TRIAL/WR

```
0308 *      WRITE(1)C2
0309 *      WRITE(1)C3
0310 *      WRITE(1)C4
0311 *      WRITE(1)C5
0312 *      CLOSE(UNIT=1)
0313 *      GO TO 9991
0314 * 9999    TYPE 9990
0315 * 9990    FORMAT(1X,'OPEN FAILURE ON (300,1)GLOBAL,TMP--NO RESTART!')
0316 * 9991    CONTINUE
0317          CALL CLOSE(6)
0318          CALL CLOSE(10)
0319          CLOSE(UNIT=7)
0320          CLOSE(UNIT=8)
0321          CALL CLOSE(9)
0322          CALL DETACH
0323          CALL SETEF(53)
0324          END
```


16. RECOMPUTE PROPORTIONS/CLASSIFICATION MAP DISPLAY







FDLINT,FTN

/TRIAL/WR

```

0036 IF((L.EQ.Y2).AND.(Y2.EQ.YNP2)) GO TO 2000
0037 IF((L.EQ.Y1).AND.(Y1.EQ.YNM1)) GO TO 2000
0038 RL = L
0039 RX1 = X1
0040 RX2 = X2
0041 RY1 = Y1
0042 RY2 = Y2
0043 RXX = ((RL-RY1)*(RX2-RX1))/(RY2-RY1)*RX1
0044 XX = RXX+.5
0045 IF(Y1.LT.Y2) GO TO 510
0046 XX=RXX
0047 IF((RXX-XX).GT..5) XX=XX+1
0048 510 CONTINUE
0049 IF ((XX.GE. X1) .AND. (XX .LE. X2) ) GO TO 600
0050 IF ((XX.LE. X1) .AND. (XX .GE. X2) ) GO TO 600
0051 2000 I = I+1
0052 IF ( I .GT. NPTSE ) GO TO 5
0053 GO TO 100
0054 600 IF(L.LE.Y1.AND.L.GE.Y2) GO TO 700
0055 IF(L.LE.Y2.AND.L.GE.Y1) GO TO 700
0056 GO TO 2000
0057 700 JJ = JJ+1
0058 FL(JJ) = XX
0059 IF ( JJ .EQ. 1 ) GO TO 2000
0060 IF ( I .NE. NPTSE ) GO TO 3000
0061 IF(L.NE.Y2) GO TO 3000
0062 XNM1=X1
0063 YNM1=Y1
0064 X1=X2
0065 Y1=Y2
0066 X2=FIELD(1,2)
0067 Y2=FIELD(2,2)
0068 GO TO 3001
0069 3000 IF ( L .NE. Y1 ) GO TO 2000
0070 3001 IF ((Y1.LT. YNM1) .AND. (Y1 .GT. Y2 ) ) GO TO 4000
0071 IF ((Y1 .GT. YNM1) .AND. (Y1 .LT. Y2) ) GO TO 4000
0072 GO TO 2000
0073 4000 FL(JJ) = 0
0074 JJ = JJ+1
0075 GO TO 2000
0076 1000 IF(L.NE.Y1) GO TO 2000
0077 IF(X1.GT.X2) GO TO 5000
0078 IF(YNM1.LT.Y1) GO TO 6000
0079 IF ( YNP2 .GT. Y2 ) GO TO 7000
0080 JJ = JJ+1
0081 FL(JJ) = X1
0082 GO TO 2000
0083 7000 JJ = JJ+1
0084 FL(JJ) = X1
0085 MM = JJ+1
0086 FL(MM) = X2
0087 JJ = MM
0088 GO TO 2000
0089 6000 IF ( YNP2 .LT. Y2 ) GO TO 2000
0090 JJ = JJ+1
0091 FL(JJ) = X2

```

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FDLINT.FTN /TRIAL/WR

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```
0092      GO TO 2000
0093  5000 IF ( YNM1 .LT. Y1 ) GO TO 9000
0094      IF ( YNP2 .GT. Y2 ) GO TO 2000
0095      JJ = JJ+1
0096      FL(JJ) = X2
0097      IF(NPTS.EQ.2)FL(JJ)=X1
0098      GO TO 2000
0099  9000 IF ( YNP2 .GT. Y2 ) GO TO 8000
0100      JJ = JJ+1
0101      FL(JJ) = X1
0102      MM = JJ+1
0103      FL(MM) = X2
0104      JJ = MM
0105      GO TO 2000
0106  8000 JJ = JJ+1
0107      FL(JJ) = X1
0108      GO TO 2000
0109      5 NPTS1 = JJ-1
0110      DO 29 NI = 1,NPTS1
0111      NP1 = NI+1
0112      DO 29 NJ = NP1,JJ
0113      IF ( FL(NI) = FL(NJ) ) 29,29,28
0114  28 NTEMP = FL(NI)
0115      FL(NI) = FL(NJ)
0116      FL(NJ) = NTEMP
0117  29 CONTINUE
0118      NSAMP = 0
0119      DO 30 N = 1,JJ,2
0120      NN = N+1
0121      NSAMP = NSAMP+(FL(NN) -FL(N)+1)
0122  30 CONTINUE
0123      RETURN
0124  35 IF(YLINE.NE.FIELD(2,1))RETURN
0125      FL(1)=FIELD(1,1)
0126      FL(2)=FIELD(1,1)
0127      NSAMP=1
0128      JJ=2
0129      RETURN
0130      END
```


16.1 SUBROUTINE FDLINT

A flow chart for this subroutine is not available.

~~1000~~

16.2 SUBROUTINE RECPRN

```

FORTRAN IV-PLUS V02-04      10113104      05-JUL-77      PAGE 16
RECPRN,FTN      /TR:ALL/WR
0001      SUBROUTINE RECPRN(A)
          C      THIS SUBROUTINE PRINTS RECOMPUTED PROPORTIONS,
0002      IMPLICIT INTEGER (A-Z)
0003      INCLUDE 'SYI[300,3]CAMSCOMON,INC'
0004      INCLUDE 'SYI[300,3]CAMSPARAM,INC'
0005      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=50
          1,MAXV=11,NDOTS=209,DLSKIP=10,DSKIP=10,MAXACD=6,MAXACC=4,
          2NOSPD=6,NODTWD=10
0006      EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,TX1),(C5,DISKID)
0007      INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)
          C*
0008      INTEGER ACDATE,SUBCAT,SUBPOP,CATKNT,CATTH
0009      BYTE CHNVEC,NCHAN,NOSUB,DOTCAT,DOTCLU
0010      COMMON/C0M1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NCHAN,NOSUB,
          1SURCAT(MAXSUB),SUBPOP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NODD,
          2NODU,NOTH,DOTCAT(NDOTS),DOTCLU(NDOTS)
          C*
0011      INTEGER ADATES,SUNAZ,ANALST,FLDDAY,DOTDAY,PDATE1,TDATE1
0012      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDOM,GRID
0013      BYTE DELFLG,NACQ,S0ILGR,SUNEL,NSTART,NTYPE1,ALP,ALPD
0014      BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE
0015      COMMON/C0M2/ISEG,DELFLG,NACQ,ADATES(2,MAXACD),S0ILGR(MAXACD),
          1SUNEL(MAXACD),SUNAZ(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),
          2DOTDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
          3PDATE3(2),TDATE3(2),NOCAT,CATNAM(MAXCAT),ALP(MAXCAT),ALPD,
          4PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0
          C*
0016      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
          1UFLAG4
0017      INTEGER PFLAG,DSKMNT
0018      COMMON/C0M3/PFLAG,DSKMNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1
          1,UFLAG2,UFLAG3,UFLAG4,NEWLAB(MAXSUB)
          C*
0019      INTEGER TX1,TY1,TX2,TY2,ACDISP,G,B,DTWIND,DOTARY,GMIN,GMAX,FUL
0020      INTEGER SPWIND,CLAWND,CLUWND
0021      COMMON/C0M4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I11(4),G(4),
          1B(4),DTWIND(5,NODTWD),SPWIND(5,NOSPD),IMWIND(4),NUMDOT,
          2DOTARY(NDOTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)
0022      COMMON/C0M5/DISKID,RANDOM(NDOTS),GRID(NDOTS),DLABEL(NDOTS),
          1TYPE(NDOTS),RECL0C
0023      REAL RECPCT(MAXCAT),PERD0,PERDU,PERTH,PERUND,CATX
0024      BYTE HMS(8),W(74),NV,VERTEX,L0WHI,8FCLUS(NPIX),
          18FCLAS(NPIX),FLDINT(MAXFLD),CHAN,LABEL
0025      COMMON/RCP/ICAANT(MAXSUB),IRESUB(MAXSUB),FLDNAM(3,MAXFLD),
          1LABEL(MAXFLD),VERTEX(2,MAXV,MAXFLD),NV(MAXFLD),FIELD(2,MAXV),
          2L0WHI(MAXFLD,2),FL(8,MAXFLD),FLL(8),DIRCAT(NDOTS),
          3CHAN(16),X,RECPCT,PERD0,PERDU,PERTH,PERUND,
          4NLP,NDOPIX,NDOPIX,NTW,UNID
          C      BEGIN PROCESSING.
0026      KF1=0
0027      KF2=0
0028      PAGE=0
          C      FILL CLASSIFICATION CHANNEL VECTOR,
0029      K=1
0030      IT0CHN=0
0031      DO 1 I=1,MAXACC

```


FORTRAN IV-PLUS
RECPRN,FTN

V02=04

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0032      DO 2 J=1,MAXCHN
0033      K=J*(I-1)+MAXCHN
0034      CHAN(K)=0
0035      IF(CHNVEC(J,I),EQ, 0) GO TO 2
0036      ITCHN=ITCHN+1
0037      CHAN(ITCHN)=K
0038      CONTINUE
0039      CONTINUE
0040      IF(KF2 ,EQ, NOCAT) PAGE=0
0041      CALL IDATE(IM,ID,IY)
0042      CALL TIME(HMS)
0043      CALL OUTPUT(27,12)
0044      WRITE(6,4) IM,ID,IY,(HMS(J),J=1,6)
0045      4      FORMAT(51X,'DATE',12,'/',12,'/',12,51X,'TIME',8A1/)
0046      WRITE(6,5)
0047      5      FORMAT(/1X,'RECOMPUTED PROPORTIONS REPORT'//)
0048      WRITE(6,6) ISEG,((ACDATE(I,J),I=1,2),J=1,MAXACC),
0049      1      (CHAN(K),K=1,ITCHN)
0049      6      FORMAT(/1X,'SEGMENT ID ',16/
0050      1      1X,'ACQUISITION DATES ',4(12,13,1X)/
0051      2      1X,'CLASSIFICATION CHANNELS ',16(12,1X)/)
0052      IF(PAGE ,NE, 0) GO TO 12
0053      KF2=0
0054      IF(X ,NE, 0) GO TO 170
0055      CATX=0
0056      ICATX=0
0057      GO TO 171
0058      170      CATX=RECPCT(X)
0059      171      ICATX=ICAKNT(X)
0060      WRITE(6,7) NLP,NDOPIX,PERDN,NDUPIX,PERDUNTH,PERTH,
0061      1      ICATX,CATX,UNID,PERUND
0062      7      FORMAT(/51X,'PER CENT'/
0063      1      1X,'NUMBER OF PIXELS IN SCENE',7X,15/
0064      2      1X,'NUMBER OF DO PIXELS ',11X,15,13X,F6,2/
0065      3      1X,'NUMBER OF DU PIXELS ',11X,15,13X,F6,2/
0066      4      1X,'NUMBER OF THRESHOLDED PIXELS ',2X,15,13X,F6,2/
0067      5      1X,'NUMBER OF CATEGORY X PIXELS ',3X,15,13X,F6,2/
0068      6      1X,'NUMBER OF IDENTIFIABLE PIXELS ',1X,15,13X,F6,2/)
0069      PAGE=1
0070      WRITE(6,9)
0071      9      FORMAT(/3 TYPE IN E(X)IT, (R)ECYCLE, OR PAGE (F)ORWARD >')
0072      CALL OUTPUT(7)
0073      READ(6,10) W
0074      10      FORMAT(74A1)
0075      CALL FRENT(W,74)
0076      C      ANALYSE ANALYST INPUT,
0077      C      VALID OPTIONS ARE X,P,F,
0078      IF(W(1) ,EQ, 'X') GO TO 19
0079      IF(W(1) ,EQ, 'P') GO TO 20
0080      IF(W(1) ,EQ, 'F' ,OR, W(1) ,EQ, ' ') GO TO 3
0081      WRITE(6,11)
0082      11      FORMAT(6X,'INVALID INPUT...TRY AGAIN'//)
0083      GO TO 8
0084      IF(KF1 ,NE, 0) GO TO 14
0085      KF1=1
0086      KF2=5

```



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FORTRAN IV-PLUS V02-04      10113104      05-JUL-77      PAGE 18
RECPRN,FTN      /TRIAL/WR
0076      IF(KF2 .GT. N0CAT) KF2=N0CAT
0077      GO TO 16
0078      14      IF(KF2 .LT. N0CAT) GO TO 15
0079      KF1=0
0080      KF2=0
0081      PAGE=0
0082      GO TO 3
0083      15      KF1=KF2+1
0084      KF2=KF1+4
0085      IF(KF2 .GT. N0CAT) KF2=N0CAT
0086      16      WRITE(6,17)
0087      17      FORMAT(/1X,'CATEGORY',5X,'NUMBER OF PIXELS',5X,
1          'X OF IDENTIFIABLE',5X,'NUMBER OF PIXELS'/16X,
2          'IN CATEGORY',14X,'PIXELS',12X,'THRESHOLDED'/)
0088      WRITE(6,18) ((CATNAM(I),ICAKNT(I),RECPCT(I),CATTH(I)),
1          I=KF1,KF2)
0089      18      FORMAT(4X,A2,13X,15,16X,F6,2,15X,15/)
0090      GO TO 8
0091      19      A=0
0092      GO TO 21
0093      20      A=1
0094      21      RETURN
0095      END

```


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16.2 SUBROUTINE RECPRN

A flow chart for this subroutine is not available.

16.3 SUBROUTINE CLADIS

MFORTTRAN IV-PLUS V02=04
CLADIS.FTN /TR:BLOCKS/WR

10/31/80

29-JUN-77

PAGE 1

CLASSIFICATION MAP DISPLAY

SOURCE PROGRAM [131,140]CLADIS.FTN

WRITTEN BY GERALD CHAMPAGNE

THIS PROGRAM PRODUCES A CLASSIFICATION
MAP DISPLAY

```

0001      IMPLICIT INTEGER(A=2)
0002      INCLUDE 'C300,3JCAMSCOMON,INC'
0003      INCLUDE 'SYI2300,3JCAMSPARAM,INC'
0004      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NP1X=196,NL1N=117,MAXFLD=50
      1,MAXV=11,NDBTS=209,DLSP=10,DSKIP=10,MAXACD=6,MAXACC=4,
      2NOSPWD=6,NBDTHD=10
0005      EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,IX1),(C5,DISKID)
0006      INTEGER C1(469),C2(296),C3(71),C4(348),C5(629)
      C=
0007      INTEGER ACDATE,SUBCAT,SUBPOP,CATKNT,CATTH
0008      BYTE CHNVEC,NCHAN,NOSUB,DOTCAT,DOTCLU
0009      COMMON/COM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NCHAN,NOSUB,
      1SUBCAT(MAXSUB),SUBPOP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NDBS,
      2NBDU,NBTH,DOTCAT(NDBTS),DOTCLU(NDBTS)
      C=
0010      INTEGER ADATES,SUNAZ,ANALST,FLDDAY,DOTDAY,PDATE1,TDATE1
0011      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDOM,GRID
0012      BYTE DELFLG,NBAG,SBILGR,SUNEL,NSTART,NTYPE1,ALP,ALPB
0013      BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE
0014      COMMON/COM2/ISEG,DELFLG,NBAG,ADATES(2,MAXACD),SBILGR(MAXACD),
      1SUNEL(MAXACD),SUNAZ(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),
      2DOTDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
      3PDATE3(2),TDATE3(2),NBAG,CATNAM(MAXCAT),ALP(MAXCAT),ALPB,
      4PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0
      C=
0015      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
      1UFLAG4
0016      INTEGER PFLAG,DSKMNT
0017      COMMON/COM3/PFLAG,DSKMNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,
      1,UFLAG2,UFLAG3,UFLAG4,NEWLAB(MAXSUB)
      C=
0018      INTEGER TX1,TY1,TX2,TY2,ACDISP,G,B,DTHIND,DOTARY,GMIN,GMAX,FUL
0019      INTEGER SPWIND,CLAWND,CLUWND
0020      COMMON/COM4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I1(4),G(4),
      1B(4),DTHIND(5,NBDTHD),SPWIND(5,NOSPWD),IMWIND(4),NUMDNT,
      2DOTARY(NDBTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)
0021      COMMON/COM5/DISKID,RANDOM(NDBTS),GRID(NDBTS),DLABEL(NDBTS),
      1TYPE(NDBTS),RELOC
0022      COMMON /LBCOM2/CHASK
0023      COMMON /ZBOM/IC(4),TC(4),IX,IY,TX,TY,MX,MY
0024      COMMON /FATAL/EO,RR
0025      DIMENSION IX(512),IY(512),TX(512),TY(512)
0026      DIMENSION CHASK(60),CFORD(4)
0027      BYTE W(74),ATIME(8)
0028      NP1X4=NP1X/4

```



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FORTRAN IV PLUS V02-04      10131128      29-JUN-77      PAGE 2
CLADIS.FTN
0029      /TRIBLOCKS/WR
0030      CALL ATTACH
          1  OPEN(UNIT=8,NAME='C300,1)CLASSMAP,TMP1,TYPE='UNKNOWN',
          ACCESS='DIRECT',RECORDSIZE=NP1X4,MAXREC=NLIN)
0031      CALL OUTPUT(27,12)
0032      CALL DATE(MM,DD,YY)
0033      CALL TIME(ETIME)

          C
          C
          C              DISPLAY STANDARD HEADING AND PROGRAM NAME

0034      WRITE(6,820) MM,DD,YY,ETIME
0035      WRITE(6,810)

          C
          C
          C              CHECK NEAREST NEIGHBOR FILE EXISTANCE FLAG

0036      IF(EFLAG2.NE.1) WRITE(6,830)
0037      IF(EFLAG2.NE.1) GO TO 777
0038      CONTINUE

          10
          C
0039      DO 15 I=1,MAXCAT
0040          CHASK(I)=0
0041      CONTINUE

          15
          C
          C
          C              GET COORDINATES

0042      CALL GETC00(IC,TC,ISET)
0043      IF(ISET.EQ.0) GO TO 777

          C
          C
          C              ALLOW FOR ZOOMING UP OR DOWN

0044      20  CALL Z0000M(IC(1),IC(2),IC(3),IC(4),TC(1),TC(2),TC(3),TC(4),
          1  IX,IY,IX,TY,DXZ,DYZ,MX,MY,DX)
0045      IF(Z0.EQ.1) GO TO 10

          C
          C
          C              SAVE COORDINATES IN GLOBAL COMMON

0046      DO 25 I=1,8
0047          IF(I.LE.4) CLAWND(I)=TC(I)
0048          IF(I.LE.4) GO TO 25
0049          CLAWND(I)=IC(I-4)
0050      CONTINUE

          25
          C
          C
          C              LIST USER OPTIONS

0051      30  WRITE(6,840)
0052      CALL OUTPUT(7)
0053      READ(6,800) W
0054      CALL FRONT(W,74)
0055      IF(W(1).EQ.'N') GO TO 40
0056      IF(W(1).EQ.'Y') CALL LIST3
0057      IF(W(1).EQ.'Y') GO TO 40
0058      IF(W(1).EQ.'X') GO TO 60
0059      WRITE(6,880)
0060      GO TO 30
0061      40  CONTINUE
0062      CALL CLATHM
0063      CALL TWRITE

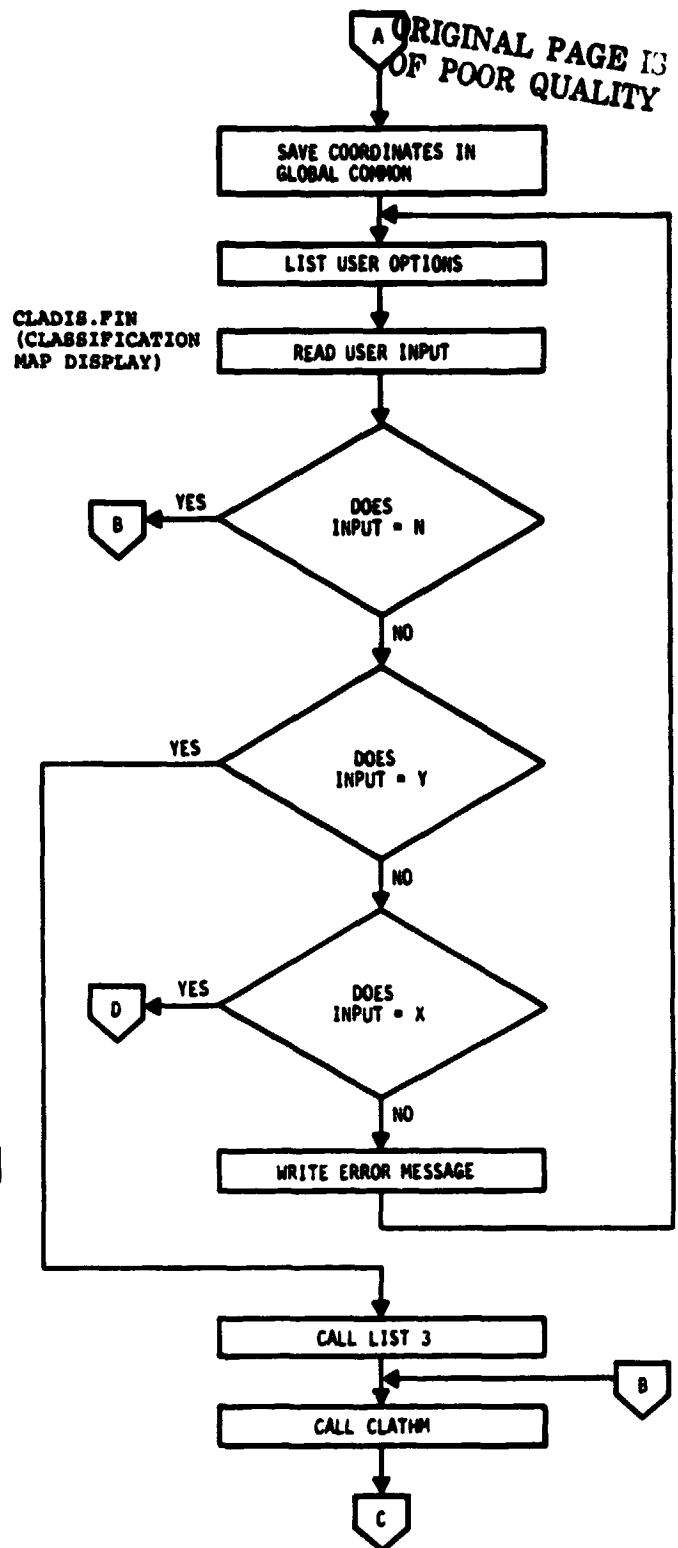
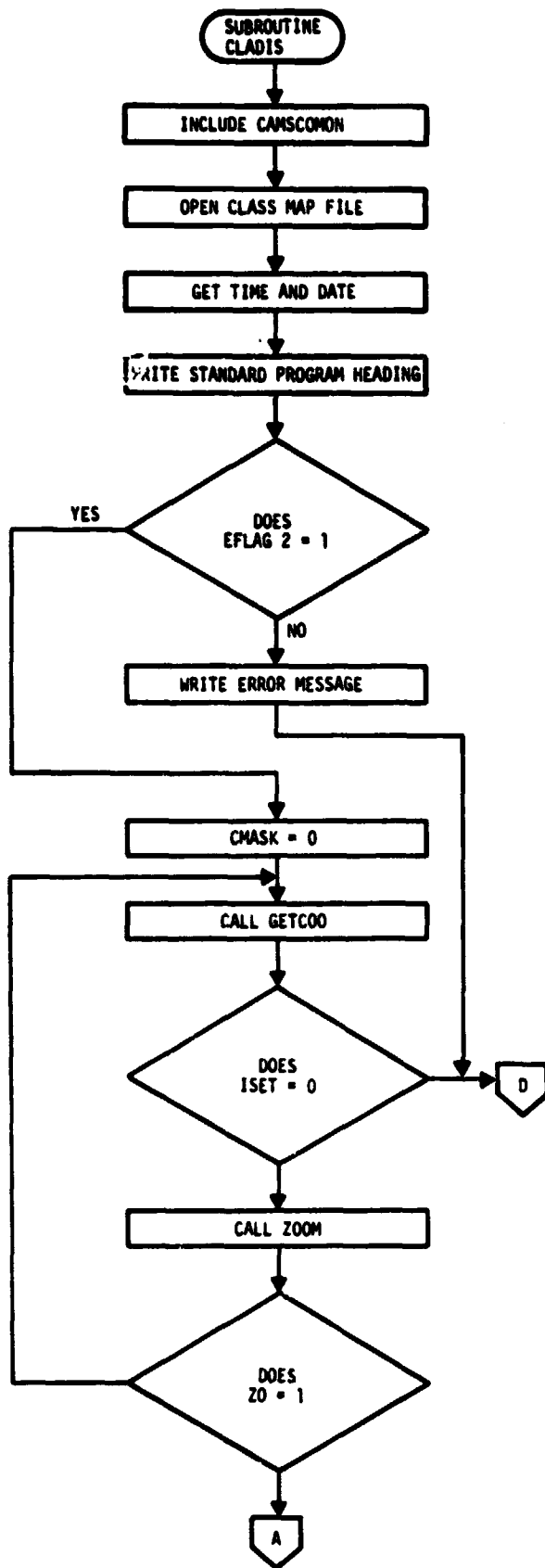
```

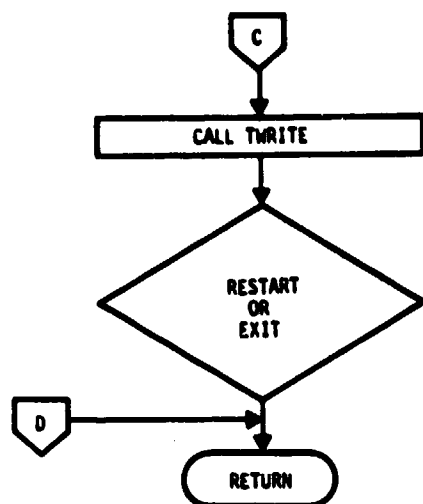

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CLADIS.FTN      /TRIBLOCKS/HR
0064      60      WRITE(6,870)
0065              CALL OUTPUT(7)
0066              READ(6,880) W
0067              CALL FRONT(W,74)
0068              IF(W(1).EQ.'R') GO TO 10
0069              IF(W(1).EQ.'X') GO TO 777
0070              WRITE(6,880)
0071              GO TO 60
0072      777      CONTINUE
0073              CLOSE(UNIT=8)
0074              CALL DETACH
0075              CALL SETEF(53)
0076      800      FORMAT(74A1)
0077      810      FORMAT(/10X,'CLASSIFICATION MAP DISPLAY/MAY 1977')
0078      820      FORMAT(/40X,'DATE:   ',12,'/',12,'/',12,
1              /40X,'TIME:   ',8A1)
0079      830      FORMAT(/' EFLAG2 IS NOT EQUAL TO 1')
0080      840      FORMAT(/'S LIST OF CATEGORIES? (Y)ES OR (N)O >')
0081      870      FORMAT('S (R)ESTART OR E(X)IT >')
0082      880      FORMAT(' INPUT ERROR ... TRY AGAIN')
0083      END

```



16.4 SUBROUTINE LIST3

HF08TRAN IV-PLUS V02-04

10131143

29-JUN-77

PAGE 1

LIST3,FTN

/TRIBLOCKS/WR

0001

SUBROUTINE LIST3

C
C
C
CTHIS PROGRAM DISPLAYS ON THE ORIGINAL PAGE IS
CATEGORIES AND CATEGORY NUMBERS OF POOR QUALITY

```

0002      IMPLICIT INTEGER (A-Z)
0003      INCLUDE '(300,3)CAMSCOMON,INC'
0004      INCLUDE 'SYI(300,3)CAMSPARAM,INC'
0005      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=50
          1,MAXV=11,NDOTS=209,DLSP[P=10,DSSK[P=10,MAXACD=6,MAXACC=4,
          2NOSPWD=6,NODTWD=10
0006      EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,TX1),(C5,DISKID)
0007      INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)
          C*
0008      INTEGER ACDATE,SUBCAT,SUBPOP,CATKNT,CATTH
0009      BYTE CHNVEC,N0CHAN,N0SUB,D0TCAT,D0TCLU
0010      COMMON/C0M1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),N0CHAN,N0SUB,
          1SUBCAT(MAXSUB),SUBPOP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),N0D0,
          2N0DU,N0TH,D0TCAT(N0D0TS),D0TCLU(N0D0TS)
          C*
0011      INTEGER ADATES,SUNAZ,ANALST,FLDDAY,D0TDAY,PDATE1,TDATE1
0012      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RAND0M,GRID
0013      BYTE DELFLG,N0ACO,S0ILGR,SUNEL,NSTART,NTYPE1,ALP,ALP0
0014      BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE
0015      COMMON/C0M2/ISEG,DELFLG,N0ACO,ADATES(2,MAXACD),S0ILGR(MAXACD),
          1SUNEL(MAXACD),SUNAZ(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),
          2D0TDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
          3PDATE3(2),TDATE3(2),N0CAT,CATNAM(MAXCAT),ALP(MAXCAT),ALP0,
          4 PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0
          C*
0016      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
          1UFLAG4
0017      INTEGER PFLAG,DSKMNT
0018      COMMON/C0M3/PFLAG,DSKMNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1
          1,UFLAG2,UFLAG3,UFLAG4,NEULAB(MAXSUB)
          C*
0019      INTEGER TX1,TY1,TX2,TY2,ACDISP,G,B,DTWIND,D0TARY,GMIN,GMAX,FUL
0020      INTEGER SPWIND,CLAWND,CLUWND
0021      COMMON/C0M4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I11(4),G(4),
          1B(4),DTWIND(5,N0DTWD),SPWIND(5,N0SPWD),IMWIND(4),NUMD0T,
          2D0TARY(N0D0TS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)
0022      COMMON/C0M5/DISKID,RAND0M(N0D0TS),GRID(N0D0TS),DLABEL(N0D0TS),
          1TYPE(N0D0TS),RELOC
0023      CALL OUTPUT(27,12)
0024      N=N0CAT/20
0025      IF(N0CAT,NE,N=20) N=N+1
0026      IF(N,GT,3) N=3
0027      IBEG=1
0028      IEND=20
0029      IF(IEND,GT,N0CAT) IEND=N0CAT
0030      DO 10 I=1,N
0031      WRITE(6,800) (J,J=IBEG,IEND)
0032      WRITE(6,810) (CATNAM(J),J=IBEG,IEND)
0033      IBEG=IBEG+20
0034      IEND=IEND+20
0035      IF(IEND,GT,N0CAT) IEND=N0CAT

```


FORTRAN IV-PLUS V02-04
LISTS,FTN /TRIBLOCKS/HR

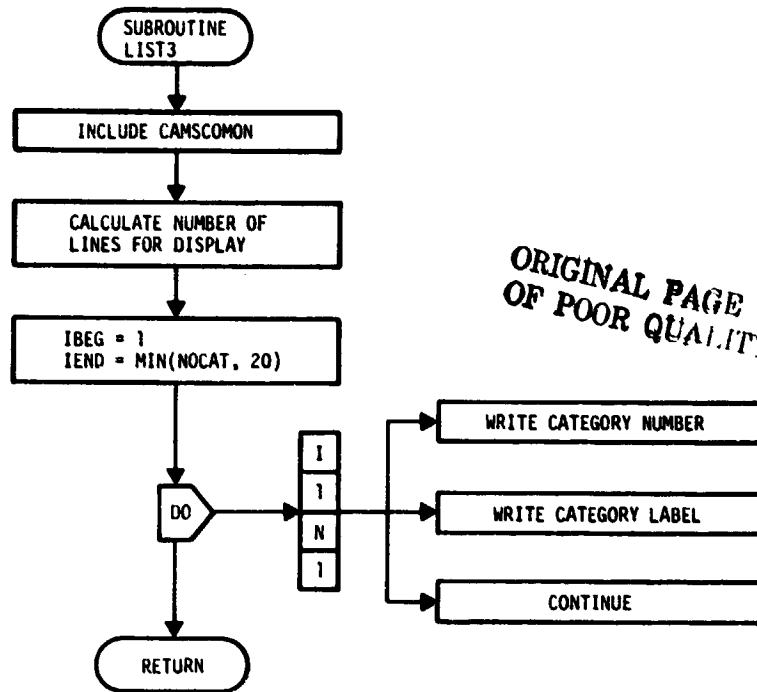
10131143

29-JUN-77

PAGE 2

0036 10 CONTINUE
0037 RETURN
0038 000 FORMAT(' CAT # ',20I3)
0039 010 FORMAT(' CATEGORY ',20(1X,A2)//)
0040 END

16.4 SUBROUTINE LIST3



16.5 SUBROUTINE CLATHM

MFORTRAN IV=PLUS V02=04

10132101

29-JUN-77

PAGE 1

CLATHM,FTN

/TRI BLOCKS/WR

0001

SUBROUTINE CLATHM

C
C
C

THIS SUBROUTINE ASSIGNS CATEGORIES TO THEMES

0002

IMPLICIT INTEGER (A=2)

0003

INCLUDE 'C300,3JCAMSCOMON,INC'

0004 *

INCLUDE 'SYIC300,3JCAMSPARAM,INC'

0005 *

PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=50

*

1,MAXV=11,NDBTS=209,DLSP=10,DSK=10,MAXACD=6,MAXACC=4,

*

2NOSPWD=6,NODTWD=10

0006 *

EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,TX1),(C5,DISKID)

0007 *

INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)

* C

0008 *

INTEGER ACDATE,SUBCAT,SUBPOP,CATKNT,CATTH

0009 *

BYTE CHNVEC,NCHAN,NOSUB,DOTCAT,DOTCLU

0010 *

COMMON/COM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NCHAN,NOSUB,

*

1SUBCAT(MAXSUB),SUBPOP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NODU,

*

2NODU,NOTH,DOTCAT(NDBTS),DOTCLU(NDBTS)

* C

0011 *

INTEGER ADATES,SUNAZ,ANALST,FLDDAY,DOTDAY,PDATE1,TDATE1

0012 *

INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDOM,GRID

0013 *

BYTE DELFLG,NBACO,S0ILGR,SUNEL,NSTART,NTYPE1,ALP,ALPB

0014 *

BYTE PCTCT,PCTCT0,VAR,VAR0,DLAREL,TYPE

0015 *

COMMON/COM2/ISEG,DEFLG,NBACO,ADATES(2,MAXACD),S0ILGR(MAXACD),

*

1SUNEL(MAXACD),SUNAZ(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),

*

2DOTDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),

*

3PDATE3(2),TDATE3(2),NBACAT,CATNAM(MAXCAT),ALP(MAXCAT),ALPB,

*

4 PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0

* C

0016 *

INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,

*

1UFLAG4

0017 *

INTEGER PFLAG,DSKMNT

0018 *

COMMON/COM3/PFLAG,DSKMNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1

*

1,UFLAG2,UFLAG3,UFLAG4,NEHLAB(MAXSUB)

* C

0019 *

INTEGER TX1,TY1,TX2,TY2,ACDISP,G,B,DTHIND,DOTARY,GMIN,GMAX,FUL

0020 *

INTEGER SPWIND,CLAWND,CLUWND

0021 *

COMMON/COM4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I11(4),G(4),

*

1B(4),DTHIND(5,NODTWD),SPWIND(5,NOSPWD),IMWIND(4),NUMDOT,

*

2DOTARY(NDBTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)

0022 *

COMMON/COM5/DISKID,RANDOM(NDBTS),GRID(NDBTS),DLABEL(NDBTS),

*

1TYPE(NDBTS),RELCG

0023

COMMON /L0COM2/CHASK

0024

COMMON /Z0COM/IC(4),TC(4),IX,IY,IX,IX,MY,MY

0025

DIMENSION IX(512),IY(512),TX(512),TY(512)

0026

BYTE W(74),IB,HDLAB(2)

0027

BYTE POSNEG,REPADD

0028

EQUIVALENCE (ILAREL,HDLAB(1))

0029

DIMENSION MASK(8),CHASK(60)

0030

DATA MASK /"001","002","004","010","020","040","100","200/

0031

DATA POSNEG,REPADD /'P','R'/

0032

IB=0

0033

IBP=1

0034

WRITE(6,805)

0035

WRITE(6,810)

10
C

GET THE THEME NUMBER AND CATEGORY NUMBER FOR
THEME DISPLAY OF THE CATEGORY

```

0036      READ(6,800)W
0037      CALL FRONT(W,74)
0038      IF(W(1).EQ.' ') CALL DEFLT2(CMASK)
0039      IF(W(1).EQ.' ') GO TO 777
0040      IPT=0
0041      HDLAB(1)=W(1)
0042      IPT=1
0043      IF(W(2).EQ.' ' .OR. W(2).EQ.' ') HDLAB(2)= ' '
0044      IF(W(2).EQ.' ' .OR. W(2).EQ.' ') GO TO 12
0045      HDLAB(2)=W(2)
0046      IPT=2
0047      CONTINUE
0048      DO 14 I=1,NDCAT
0049          IF(CATNAM(I).EQ.ILABEL) GO TO 16
0050      14      CONTINUE
0051      WRITE(6,850)
0052      GO TO 10
0053      16      CNUM=1
0054      CALL INTFF(IPT,W,74,THMNUM)
0055      IF(THMNUM.LE.8 .OR. THMNUM.GE.1) GO TO 20
0056      WRITE(6,860)
0057      GO TO 10
0058      20      WRITE(6,820) REPADD

```

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ADD OR REPLACE

```

0059      READ(6,800) W
0060      CALL FRONT(W,74)
0061      IF(W(1).EQ.' ') W(1)=REPADD
0062      IF(W(1).EQ.'A') GO TO 40
0063      IF(W(1).NE.'R') WRITE(6,830)
0064      IF(W(1).NE.'R') GO TO 20

```

ERASE WINDOW AND CLEAR THEME ON CMASK

```

0065      CALL BLKTHM(IC(1),IC(2),IC(3),IC(4),THMNUM,IB,IOP)

```

POSITIVE OR NEGATIVE DISPLAY

```

0066      40      REPADD=W(1)
0067      45      CONTINUE
0068      WRITE(6,840) POSNEG
0069      READ(6,800) W
0070      CALL FRONT(W,74)
0071      IF(W(1).EQ.' ') W(1)=POSNEG
0072      IF(W(1).EQ.'P') GO TO 50
0073      IF(W(1).EQ.'N') GO TO 50
0074      WRITE(6,830)
0075      GO TO 45
0076      50      CONTINUE
0077      POSNEG=W(1)

```

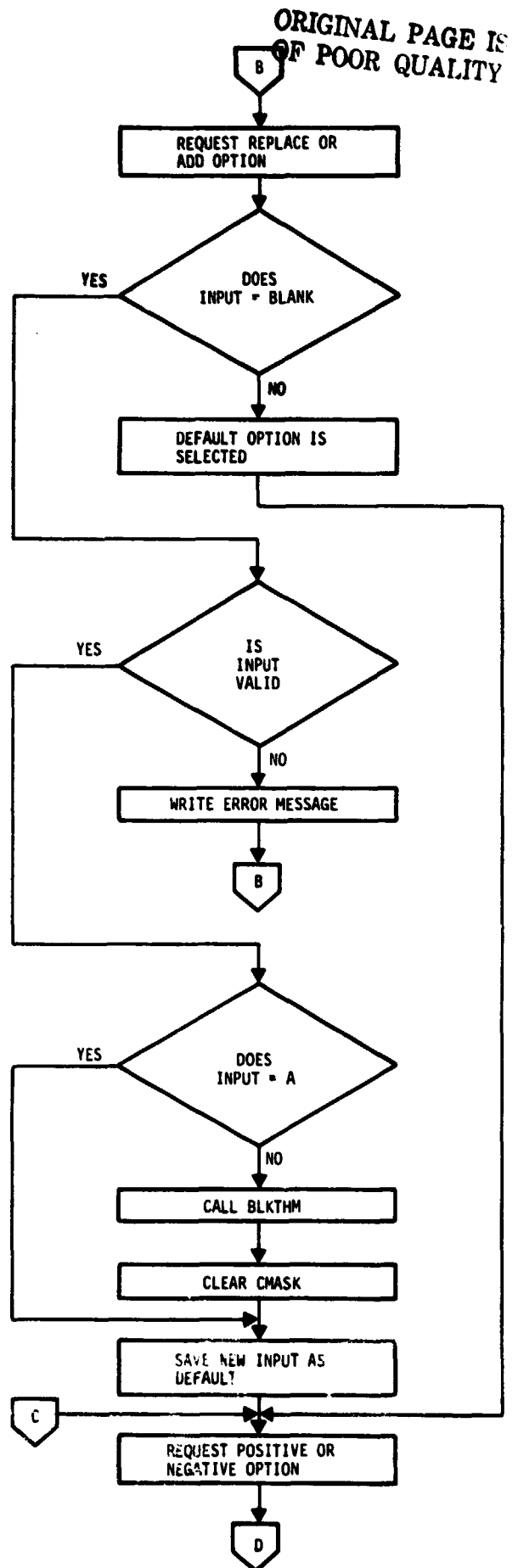
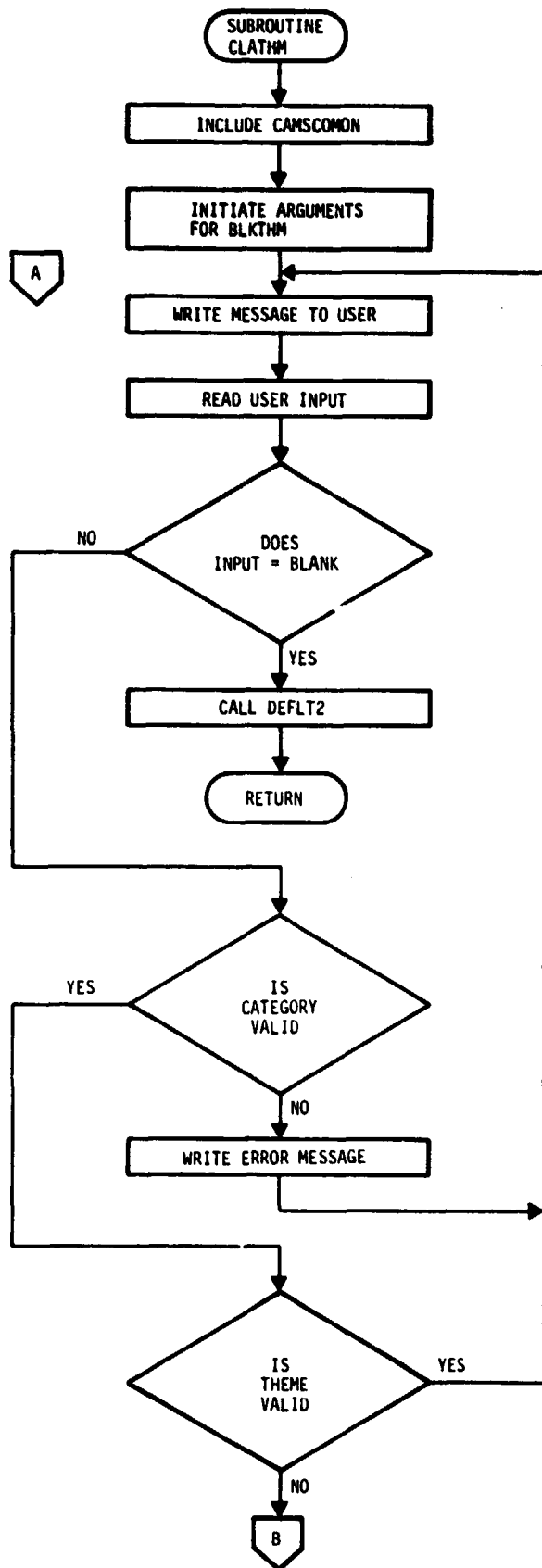

DB BIT MANIPULATION OF CHASK

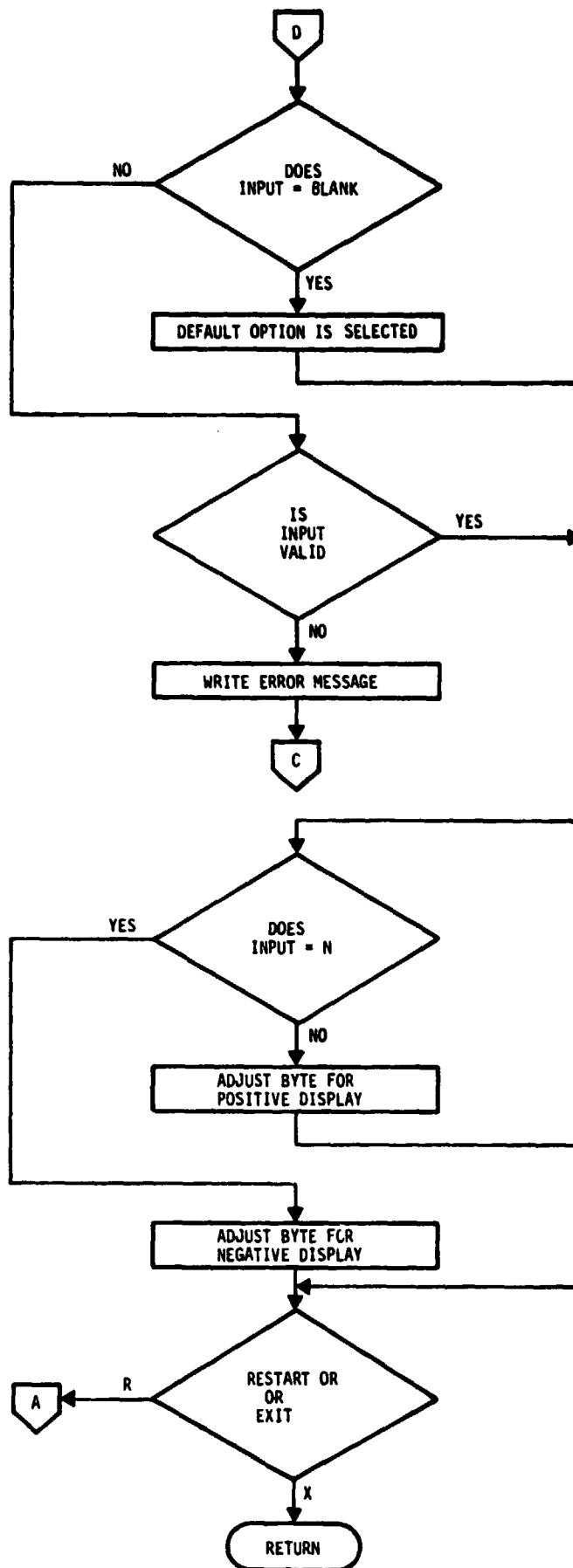
```

0078      M=CHASK(CNUM)
0079      IF(W(1),EQ,'P') CHASK(CNUM)=IBR(M,MASK(TMHNUM))
0080      IF(W(1),EQ,'P') GO TO 70
0081      DO 60 I=1,NOCAT
0082          IF(I,EQ,CNUM) GO TO 60
0083          M=CHASK(I)
0084          CHASK(I)=IBR(M,MASK(TMHNUM))
0085      CONTINUE
0086  70      CONTINUE
0087      WRITE(6,870)
0088      CALL OUTPUT(7)
0089      READ(6,800) W
0090      CALL FRONT(W,74)
0091      IF(W(1),EQ,' ') GO TO 777
0092      GO TO 10
0093  777      CONTINUE
0094      RETURN
0095  800      FORMAT(74A1)
0096  805      FORMAT(' BACK UP AND EXIT NOT ALLOWED')
0097  810      FORMAT('S ENTER CATEGORY AND THEME NUMBER >')
0098  820      FORMAT('S (A)DD OR (R)EPLACE',2X,A1,' >')
0099  830      FORMAT('/// *** INPUT ERROR ***')
0100  840      FORMAT('S (P)OSITIVE OR (N)EGATIVE',2X,A1,' >')
0101  850      FORMAT(' CATEGORY NAME INCORRECT - TRY AGAIN')
0102  860      FORMAT(' THEME NUMBER INCORRECT - TRY AGAIN')
0103  870      FORMAT('S ADDITIONAL ASSIGNMENTS ? (Y)ES OR CR >')
0104      END

```


16.5 SUBROUTINE CLATHM





16.6 SUBROUTINE DEFLT2

ORIGINAL PAGE 1
OF POOR QUALITY
PAGE 1

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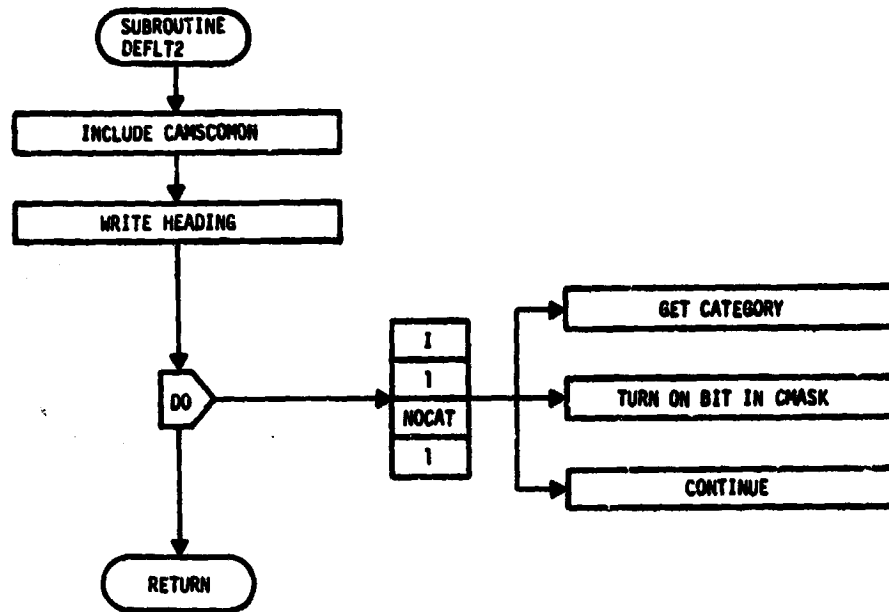
HF0RTRAN IV=PLUS V02=04      10132122      29-JUN=77
DEFLT2,FTN      /TRIBLOCKS/WR
0001      SUBROUTINE DEFLT2(CHASK)

      C
      C
      C      THIS PROGRAM ASSIGNS DEFAULT CATEGORIES
      C      FROM CLASSIFICATION TO THEMES
      C

0002      IMPLICIT INTEGER(A=2)
0003      INCLUDE 'C300,3JCAMSCOMON,INC'
0004 *      INCLUDE 'SY1C300,3JCAMSPARAM,INC'
0005 *      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=90
      *      1,MAXV=11,NDOTS=209,DLSKIP=10,DSSKIP=10,MAXACD=6,MAXACC=4,
      *      2N0SPWD=6,N0DTWD=10
0006 *      EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,IX1),(C5,DISKID)
0007 *      INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)
      *
      C*
0008 *      INTEGER ACDATE,SUBCAT,SUBPPP,CATKNT,CATTH
0009 *      BYTE CHNVEC,N0CHAN,N0SUB,D0TCAT,D0TCLU
0010 *      COMMON/C0M1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),N0CHAN,N0SUB,
      *      1SUBCAT(MAXSUB),SUBPPP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),N0D0,
      *      2N0DU,N0TH,D0TCAT(NDOTS),D0TCLU(NDOTS)
      *
      C*
0011 *      INTEGER ADATES,SUNAZ,ANALST,FLDDAY,D0TDAY,PDATE1,TDATE1
0012 *      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RAND0M,GRID
0013 *      BYTE DELFLG,N0ACO,S0ILGR,SUNEL,NSTART,NTYPE1,ALP,ALPB
0014 *      BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE
0015 *      COMMON/C0M2/ISEG,DELFLG,N0ACO,ADATES(2,MAXACD),S0ILGR(MAXACD),
      *      1SUNEL(MAXACD),SUNAZ(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),
      *      2D0TDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
      *      3PDATE3(2),TDATE3(2),N0CAT,CATNAM(MAXCAT),ALP(MAXCAT),ALPB,
      *      4      PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0
      *
      C*
0016 *      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
      *      1UFLAG4
0017 *      INTEGER PFLAG,DSKMNT
0018 *      COMMON/C0M3/PFLAG,DSKMNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1
      *      1,UFLAG2,UFLAG3,UFLAG4,NEULAB(MAXSUB)
      *
      C*
0019 *      INTEGER TX1,TY1,TX2,TY2,ACDISP,G,B,D0TWIND,D0TARY,GMIN,GMAX,FUL
0020 *      INTEGER SPWIND,CLAWND,CLUWND
0021 *      COMMON/C0M4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I1(4),G(4),
      *      1B(4),D0TWIND(5,N0DTWD),SPWIND(5,N0SPWD),IMWIND(4),NUMD0T,
      *      2D0TARY(NDOTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)
0022 *      COMMON/C0M5/DISKID,RAND0M(NDOTS),GRID(NDOTS),DLABEL(NDOTS),
      *      1TYPE(NDOTS),RECL0C
0023      DIMENSION CHASK(60),MASK(8)
0024      DATA MASK/'001','002','004','010','020','040','100','200'/
0025      WRITE(6,800)
0026      D0 30 I=1,N0CAT
0027          WRITE(6,810) CATNAM(I),I
0028          M=CHASK(I)
0029          CHASK(I)=I0R(M,MASK(I))
0030      30      CONTINUE
0031      RETURN
0032      800      FORMAT(/3X,'DEFAULT'/)
0033      810      FORMAT(3X,A2,2X,I2)
0034      END

```


16.6 SUBROUTINE DEFLT2



17. DOT DATA REPORT DOTRPT

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DEMTTRAN IV-PLUS V02-04          16123133    23-JUN-77          PAGE 1
DOTRPT,FIN          /TWO BLK/S/HR
0001      IMPLICIT INTEGER(A-Z)
0002      INCLUDE 'SYIC300.31CAMSCHMCHN.INC'
0003      INCLUDE 'SYIC300.31LANSPARAM.INC'
0004      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=90
      1,MAXVEL=1,NDOTS=209,DLSKIP=10,DSSKIP=10,MAXACD=6,MAXACC=4,
      2HOSPCD=6,NDUTW=10
0005      EQUIVALENCE (C1,ACDATE),(C2,ISG),(C3,PFLAG),(C4,TK1),(C5,DISKID)
0006      INTEGER C1(465),C2(256),C3(71),C4(348),C5(629)
      C0
0007      INTEGER ACDATE,SUMCAT,SUMSP,P,CATKAT,CATTH
0008      BYTE CHNVEC,NCHN,NOSUB,DTCAT,DTCLO
0009      COMMON/CRM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NCHN,NOSUB,
      1SUMCAT(MAXSUB),SUMSP(MAXS),CATKAT(MAXCAT),CATTH(MAXCAT),NDOT,
      2NDUTW,NTH,DTCAT(NDOTS),DTCLO(NDOTS)
      C0
0010      INTEGER ADATES,SUMAZ,ANALST,FLDDAY,DOTDAY,PDATE1,TDATE1
0011      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RAND7M,CRID
0012      BYTE DELFLB,MAXAC,SPILGH,SNEL,ASTART,NTYPE1,ALP,ALPB
0013      BYTE PCTCT,PCTCT2,VAR,VAR6,DLABEL,TYPE
0014      COMMON/CRM2/ISG,DELFLB,MAXAC,ADATES(2,MAXACD),SPILGR(MAXACD),
      1SNEL(MAXACD),SUMAZ(MAXACD),IPDATE(2),ANALST(5),FLDDAY(2),
      2DOTDAY(2),ASTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
      3PDATE3(2),TDATE3(2),PDCAT,CATNAM(MAXCAT),ALP(MAXCAT),ALPB,
      4PCTCT(MAXCAT),PCTCT2,VAR(MAXCAT),VAR6
      C0
0015      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
      1UFLAG4
0016      INTEGER PELAG,DSKY 1
0017      COMMON/CRM3/PELAG,DSKYNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1
      1,UFLAG2,UFLAG3,UFLAG4,PELAG(MAXSLR)
      C0
0018      INTEGER TX1,TY1,TX2,TY2,ZONISP,G,B,DWIND,DOTARY,GMIN,GMAX,FUL
0019      INTEGER SPID,CLAND,CLAND
0020      COMMON/CRM4/TX1,TY1,TY2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I11(4),G(4),
      1I(4),STIND(5),DOTL,SPID(5,NDSPND),IMIND(4),NDOT,
      2NDUTW(NDOTS),NTH,CLAND,FUL(2,7),CLAND(5),CLAND(5)
0021      COMMON/CRM5/DISKID,MAXCAT(NDOTS),CRID(NDOTS),DLABEL(NDOTS),
      1TYPE(NDOTS),PELCT
0022      BYTE A(74),TIME(3),TEMP(50),PEFAU(2),IRUF(52)
0023      DIMENSION TEMATY(NDOTS),GRAND(MAXACD),ARRY(MAXACD)
0024      DIMENSION ANALST(NDOTS),CLAN(NDOTS),GRENS(MAXACD)
0025      EQUIVALENCE (I1UF(1),AA1),(I1UF(17),AA2)
0026      EQUIVALENCE (I1UF(25),AA3),(I1UF(33),AA4)
0027      EQUIVALENCE (I1UF(41),AA5),(I1UF(49),AA6)
0028      I1=1
0029      CALL ELAPSE(IX1)
0030      OPEN(UNIT=,NAME='0000.11DOTS.TMP',TYPE='OLD',
      1ACCESS='DIRECT')
      1256
0031      1756
0032      175X CONTINUE
0033      CALL DOTJA (16,11)
0034      CLIP (1701,1702,1703),11
0035      1705 WITH(5,1074)
0036      1706 FORMAT(1X,'DOT CAT IN THIS TELETYPE III',/)
0037      1707 WITH(5,1076)
0038      1708 FORMAT(1X,'ENTER "OK" TO RESPECT DOTS OR E(X)IT >')

```



```

CCTPPY,FTN      /TRIBLOCKS/WR
0039          CALL OUTPUT(7)
0040          READ(6,107)
0041          107 FORMAT(74A1)
0042          CALL FRONT(W,74)
0043          IF(N(1).EQ.' ') GO TO 1708
0044          IF(W(1).EQ.'X') GO TO 1702
0045          GO TO 1706
0046          1701 CONTINUE
0047          IF(NUMDST.EQ.0) GO TO 1705
0048          DEFAC(1)=IT
0049          DEFAC(2)=IF
C 70000LE SPRT DET CNTD NUMBER
0050          DO 999 ICC=1,NUMDST
0051          TEMARY(ICC)=0
0052          999 CONTINUE
0053          DO 9 ICP=1,NUMDST
0054          TEMARY(ICP)=DETARY(ICP)
0055          9 CONTINUE
0056          IF(NUMDST.EQ.1) GO TO 1555
0057          IESNLPDET=1
0058          J=1
0059          70 MAX=JN+1
0060          DO 30 K=1,JN
0061          L=MAX-1
0062          IF(TEMARY(MAX).GT. TEMARY(L)) GO TO 80
0063          ITEMP=TEMARY(L)
0064          TEMARY(L)=TEMARY(MAX)
0065          TEMARY(MAX)=ITEMP
0066          MAX=MAX-1
0067          30 CONTINUE
0068          40 IF(JN.GE.15) GO TO 15
0069          J=JN+1
0070          GO TO 70
0071          15 CONTINUE
0072          1555 CONTINUE
0073          CALL OUTPUT (27,12)
0074          WRITE(5,1000)
0075          1000 FORMAT(131 INPUT REPORT DESCRIPTION >)
0076          CALL OUTPUT (7)
0077          READ(6,101) INPR
0078          101 FORMAT(5CA1)
0079          20 WRITE(5,1025)
0080          1025 FORMAT(1X,'SELECT OUTPUT DEVICE:')
0081          30 WRITE(5,1030) DEFAC(1)
0082          1030 FORMAT(131 TOLD PRINTER,(1) IN PRINTER OR (T)ERMINAL ',A1,' >)
0083          CALL OUTPUT (7)
0084          READ(6,100)
0085          100 FORMAT(74A1)
0086          CALL FRONT(W,74)
0087          IF(N(1).EQ.' ') GO TO 41
0088          IF(N(1).EQ.'L') GO TO 40
0089          IF(N(1).EQ.'T') GO TO 42
0090          IF(N(1).EQ.' ') GO TO 21
0091          IF(N(1).EQ.'X') GO TO 22
0092          GO TO 20
0093          21 IF(DEFAC(1).EQ.' ') GO TO 12

```



```

0094      IF(DEFVAL(1) .EQ. 'L') GO TO 10
0095      GO TO 11
0096      401 TLPAGE=NUNDBT/NOL
0097      LTNUM=NUNDBT-NOL+TLPAGE
0098      IF(LTNUM .GT. 0) TLPAGE=TLPAGE+1
0099      IF(IND .EQ. 2 .OR. IND .EQ. 3) WRITE(7,1055)
0100      GO TO 24
0101      42 DEFVAL(1)='T'
0102      12 CALL ASSIGN(7,'T1:')
C FRASE SCREEN
0103      CALL OUTPUT(27,12)
0104      IND=1
0105      N2LP=12
0106      GO TO 401
0107      26 J=1
0108      PAGE=1
0109      250 CONTINUE
0110      CALL IDATE (M2,DAY,Y4)
0111      45 WRITE(7,1001) M2,DAY,Y4
0112      1300 FORMAT(1X,T19,'***** DATA REPORT*****',T50,'DATE:',12,'/',12,
113      117',12,4X,'PAGE:',
114      114 CALL TIME (TIM)
115      1002 WRITE(7,1002) TIM,PAGE,TLPAGE
116      1002 FORMAT(1X,T50,'T1:',51,'041',T64,'13,' BF',13)
117      1005 WRITE(7,1005) 1553
118      1005 FORMAT(1X,T5,'SEGMENT 100',14)
119      1010 WRITE(7,1010)((RATES(I,JJ),I=1,2),JJ=1,NRACO)
120      1010 FORMAT(1X,T5,'ACQUISITION RATE(S)',1213)
121      1117 WRITE(7,1015) 1553
122      1117 FORMAT(1X,T5,'NET SELECTED',1,'50A1)
123      1020 WRITE(7,1020) 1553
124      1020 FORMAT(1X,T5,'TOTAL NUMBER OF NETS:',13,/)
125      1135 WRITE(7,1035)
126      1135 FORMAT(1X,T3,'GRID MAP COORDINATE DPT ANALYST CLASS',
127      127 'DPT ORLEN NUMBER')
128      127 WRITE(7,1040)
129      128 FORMAT(1X,T2,'INDEX INDEX FIXEL LINE TYPE LABEL LABEL ',
130      130 'CLUSTER 1 2 3 4 5 6')
131      131 WRITE(7,1041)
132      131 FORMAT(1X)
133      132 METANALY(J)
134      132 METANALY(J)
135      132 METANALY(J)
136      132 METANALY(J)
137      132 METANALY(J)
138      132 METANALY(J)
139      132 METANALY(J)
140      132 METANALY(J)
141      132 METANALY(J)
142      132 METANALY(J)
143      132 METANALY(J)
144      132 METANALY(J)
145      132 METANALY(J)

```

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DZTHPT,FTN

/TRIGLOCK5/H0

```

0146 IF(DLABEL(M).EQ.-2) GO TO 53
0147 DO 31 IJK=1,NOCAT
0148 IF(DLABEL(M).EQ.IJK) GO TO 36
0149 31 CONTINUE
0150 36 ANALAB(M)=CATNAM(IJK)
0151 GO TO 55
0152 51 ANALAB(M)=
0153 GO TO 55
0154 52 ANALAB(M)=DU
0155 GO TO 55
0156 53 ANALAB(M)=DU
0157 55 IF(DOTCAT(M).EQ.-1) GO TO 61
0158 IF(DOTCAT(M).EQ.-2) GO TO 62
0159 IF(DOTCAT(M).EQ.-3) GO TO 63
0160 IF(DOTCAT(M).EQ.-3) GO TO 64
0161 DO 37 IJL=1,NOCAT
0162 IF(DOTCAT(M).EQ.IJL) GO TO 37
0163 32 CONTINUE
0164 37 CLALAB(M)=CATNAM(IJL)
0165 GO TO 13
0166 41 CLALAB(M)=
0167 GO TO 13
0168 42 CLALAB(M)=DO
0169 GO TO 13
0170 43 CLALAB(M)=DU
0171 GO TO 13
0172 44 CLALAB(M)=TH
0173 45 CONTINUE
0174 DO 180
0175 I=I+1;IBYTE(ML,IBUF)
0176 I=I+1
0177 I=I+1;IBYTE(ML,IBUF)
0178 I=I+1;IBYTE(ML,IBUF)
WRITE(7,1049) T=ARY(J),GVID(M),IBUF1,IBUF2,TYPE(M),
1ALALAB(M),CLALAB(M),DOTCAT(M),GPEID(KL1),KL1=1,NOCAT)
0179 1049 FORMAT(1X,T4,I5,T11,I3,T17,I3,T22,I3,T29,I1,T36,I2,T42,I2,
1T50,I2,6I3)
J=J+1
K=K+1
IF(J.GT.NOCAT) GO TO 19
IF(K.LE.NOCAT) GO TO 23
GO TO (16,14,14),I=2
19 GO TO (16,22,22),I=2
16 WRITE(7,1049)
1049 FORMAT(50X)
181 WRITE(7,1050) I=FA(2)
1050 FORMAT(156)TER NEW FOR PAG. FORWARD OR NEW FOR PAGE BACKWARD '.
141.1 >1)
CALL OUTPUT(7)
READ(4,110)
110 FORMAT(74A1)
CALL INANT(4,74)
IF(4(1).EQ.'F') GO TO 19
IF(4(1).EQ.'L') GO TO 25
IF(4(1).EQ.'X') GO TO 29
IF(4(1).EQ.'K') GO TO 22

```

3 PHASE SCREEN


```

02198      CALL OUTPUT (27,12)
02199      GO TO 161
02200      251 IF(DEFAC(2) .EQ. 'F') GO TO 18
02201      GO TO 25
02202      253 DEFAC(2)='F'
02203      25 PAGE=PAGE+1
02204      IF(PAGE .EQ. 0) GO TO 27
02205      GO TO 28
02206      27 CALL OUTPUT (27,12)
02207      CALL CLOSE (7)
02208      GO TO 1555
02209      28 J=J-N*2L+1
02210      CALL OUTPUT (27,12)
02211      GO TO 260
02212      187 DEFAC(2)='F'
02213      18 PAGE=PAGE+1
02214      IF(PAGE .GT. TLPAGE) GO TO 181
02215      CALL OUTPUT (27,12)
02216      GO TO 260
02217      181 CALL OUTPUT (27,12)
02218      PAGE=TLPAGE
02219      WRITE(7,1054)
02220      1054 FORMAT(1X,'END OF DATA REPORT !!!')
02221      GO TO 220
02222      14 CONTINUE
02223      PAGE=PAGE+1
02224      WRITE(7,1055)
02225      1055 FORMAT(1X)
02226      GO TO 260
02227      C ERASE SCREEN
02228      22 CALL OUTPUT(27,12)
02229      220 CONTINUE
02230      CALL CLOSE (7)
02231      1700 CONTINUE
02232      IXI=2
02233      CALL ELAPSE(IXI)
02234      WRITE(6,1060)
02235      1060 FORMAT(1X,'START OF S(X)IT 7 ')
02236      CALL OUTPUT(7)
02237      READ(6,120)
02238      120 FORMAT(74A1)
02239      CALL FWRITE(N,74)
02240      IF(N(1) .EQ. 'F') GO TO 17 3
02241      IF(N(1) .EQ. 'X') GO TO 30
02242      GO TO 1702
02243      41 DEFAC(1)='G'
02244      11 CALL ASSIGN(7,'GPG:')
02245      IND=2
02246      N2L=50
02247      GO TO 401
02248      40 DEFAC(1)='L'
02249      10 CALL ASSIGN(7,'LPI')
02250      IND=3
02251      N2L=50
02252      GO TO 401
02253      30 CLOSE(UNIT=6)

```

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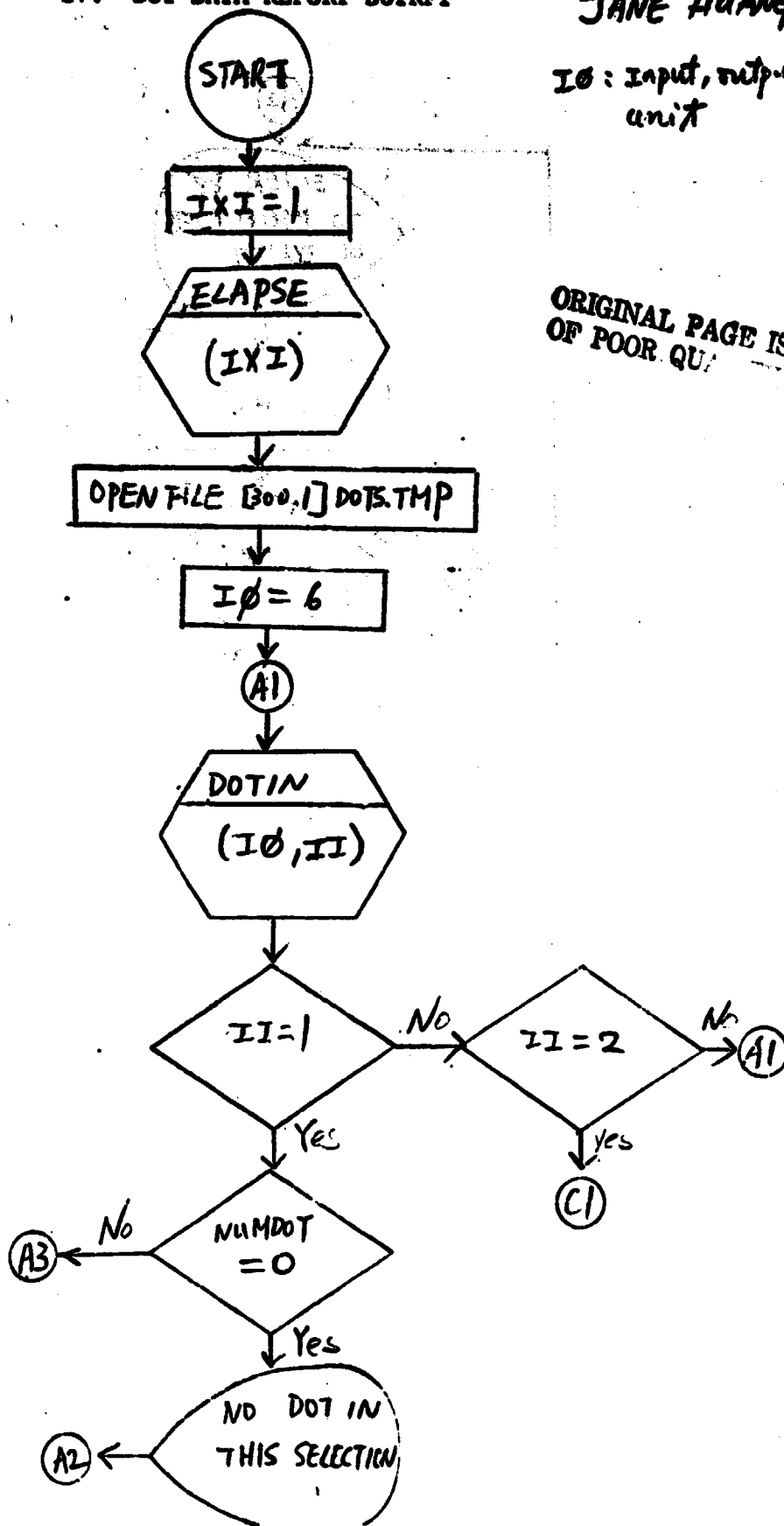
FORTRAN IV-PLUS V02-04 16123133 93-JUN-77 PAGE 6
 DETRPT.FTN /TR:9LOCKS/WP
 0253 INCLUDE '[300,3]CAMSAVE,INC'
 0254 * OPEN(UNIT=1,NAME='[300,1]GLOBAL.TMP1',FORM='UNFORMATTED',
 * 1 TYPE='UNKNOWN',ERR=9999)
 0255 * WRITE(1)C1
 0256 * WRITE(1)C2
 0257 * WRITE(1)C3
 0258 * WRITE(1)C4
 0259 * WRITE(1)C5
 0260 * CLOSE(UNIT=1)
 0261 * GO TO 9991
 0262 * 9999 TYPE 9990
 0263 * 9990 FORMAT(1X,'OPEN FAILURE IN [300,1]GLOBAL.T --NO RESTART')
 0264 * 9991 CONTINUE
 0265 CALL SETEF(50)
 0266 END

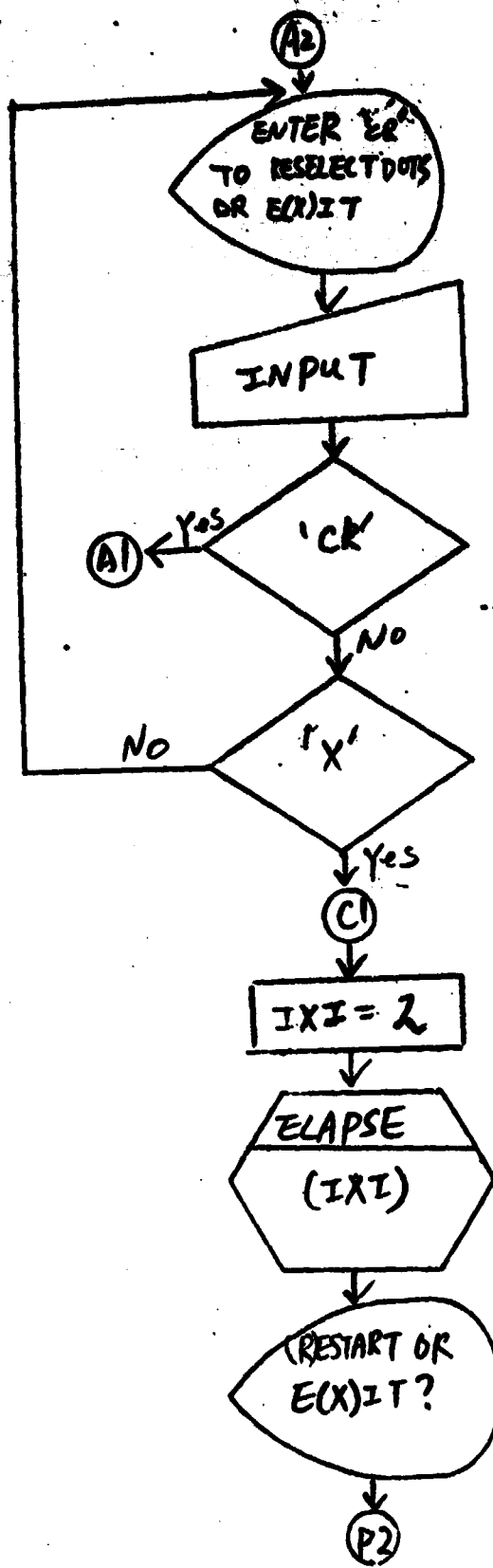
17. DOT DATA REPORT DOTRPT

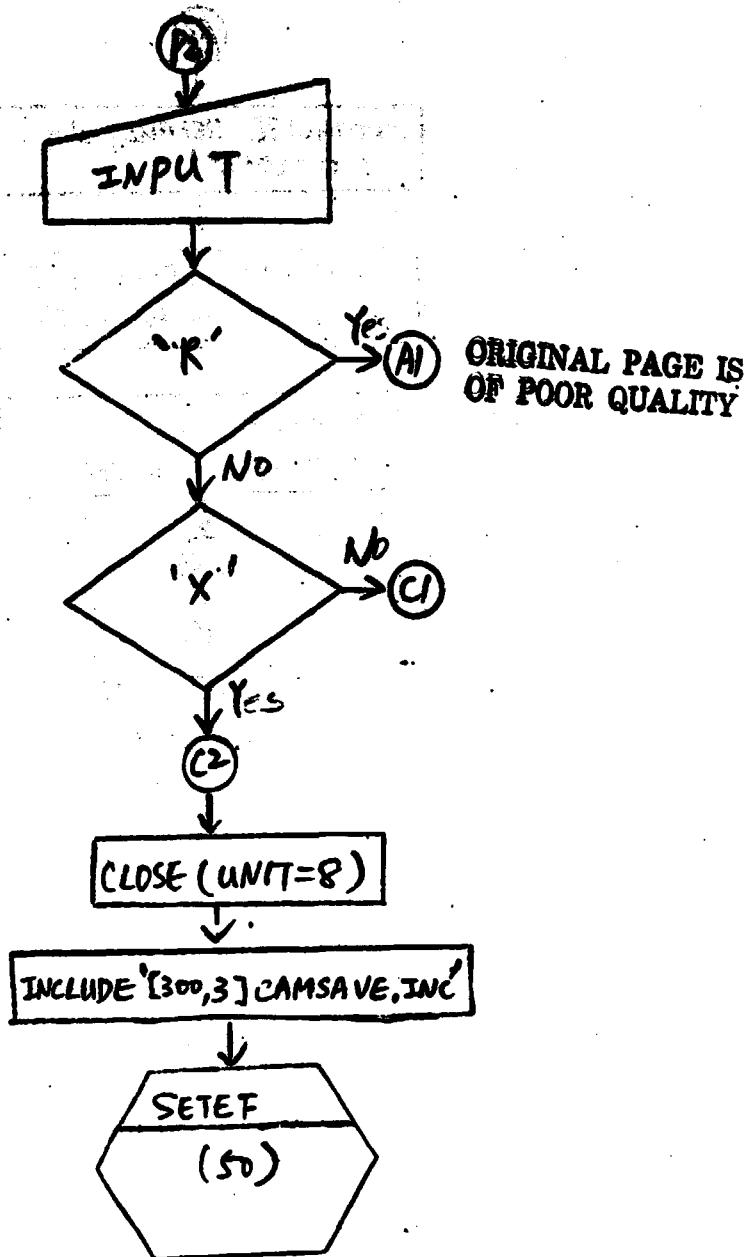
JANE HUANG 71

IO: Input, output
unit

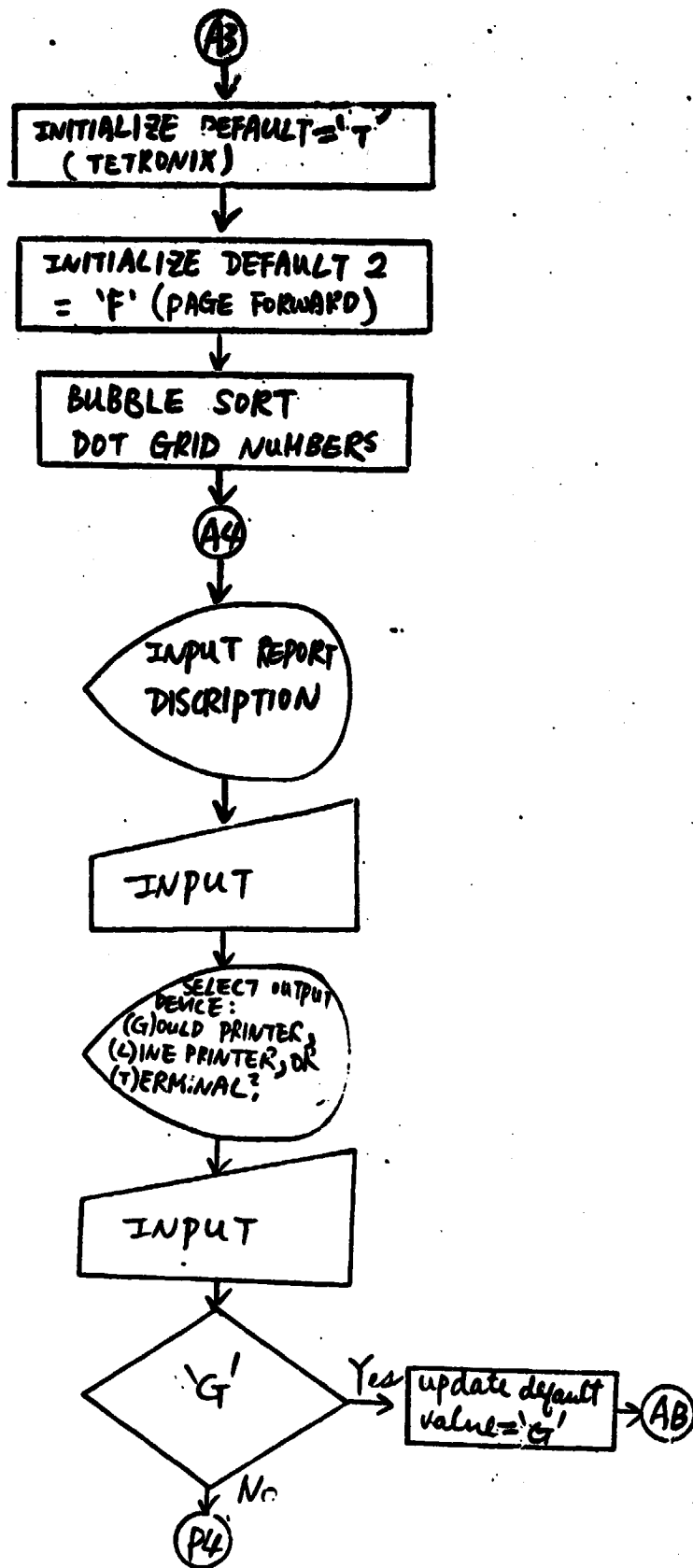
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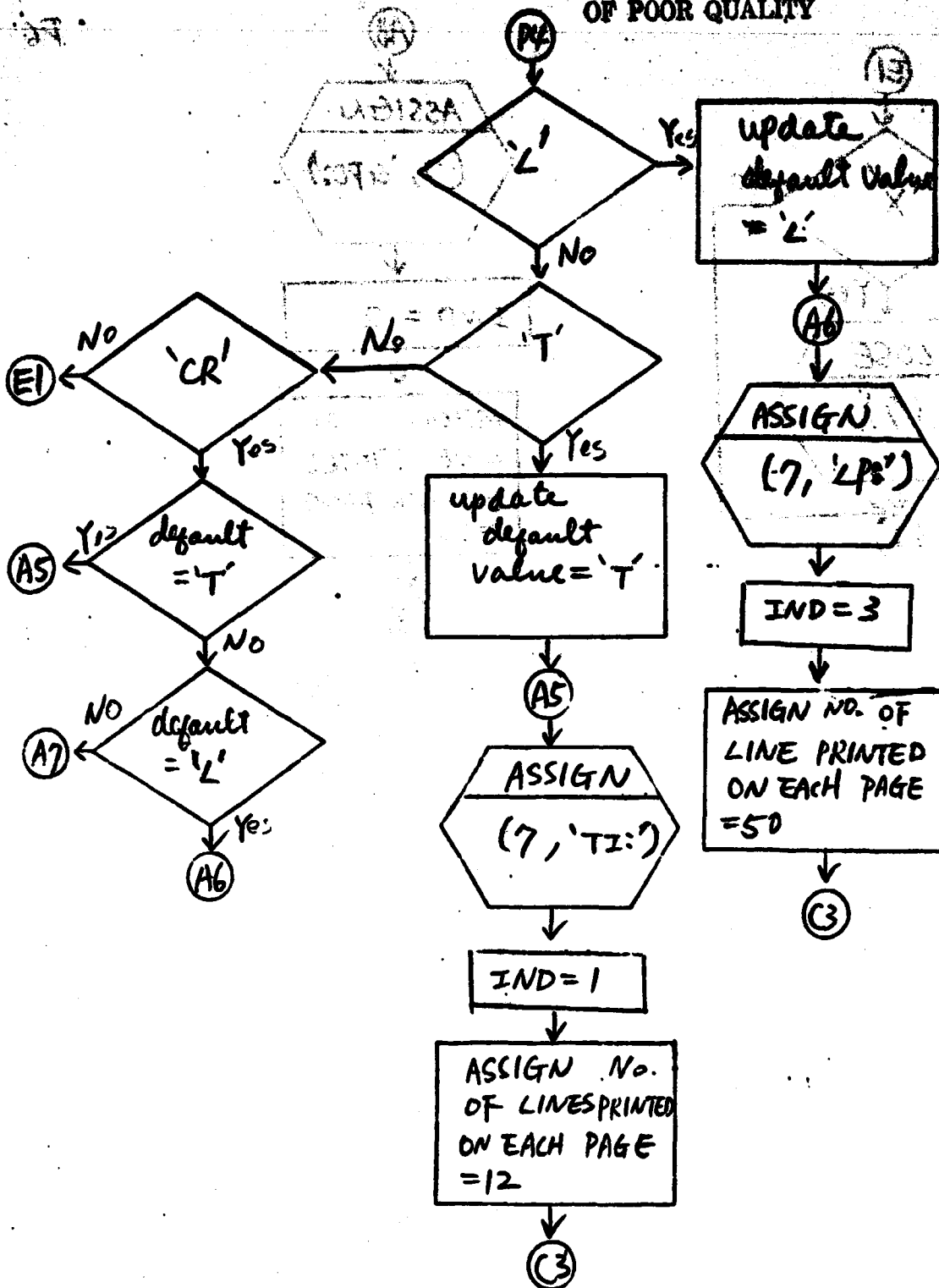


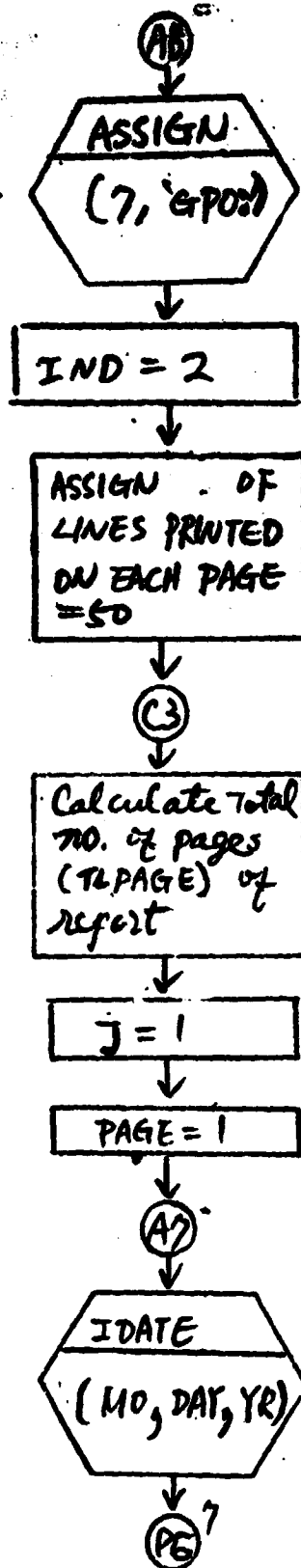
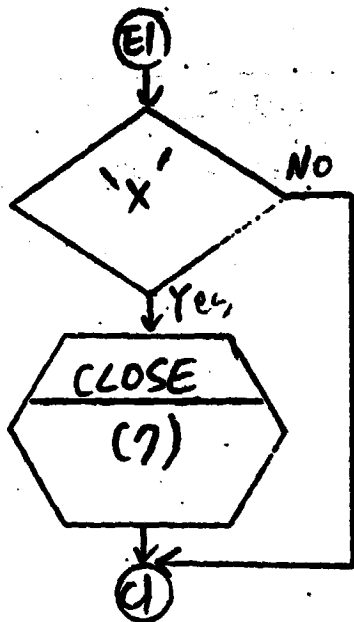
PC



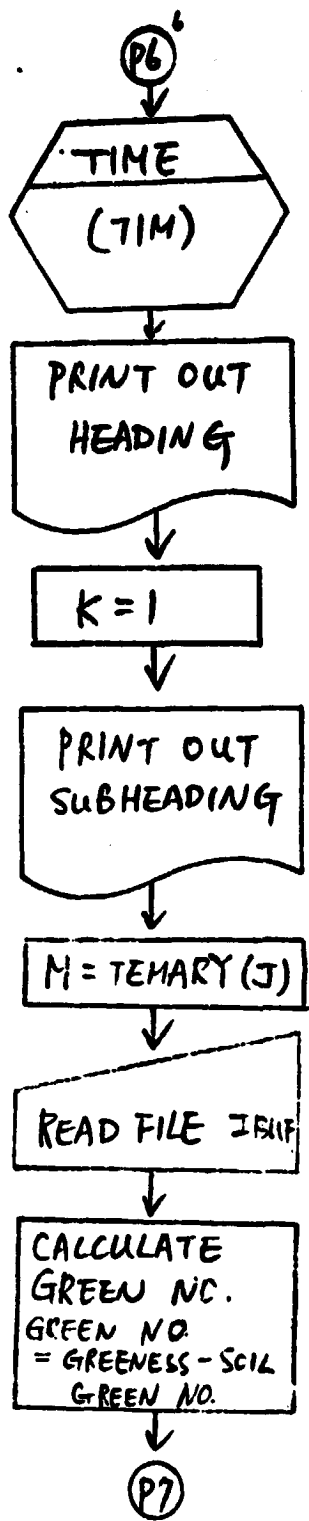
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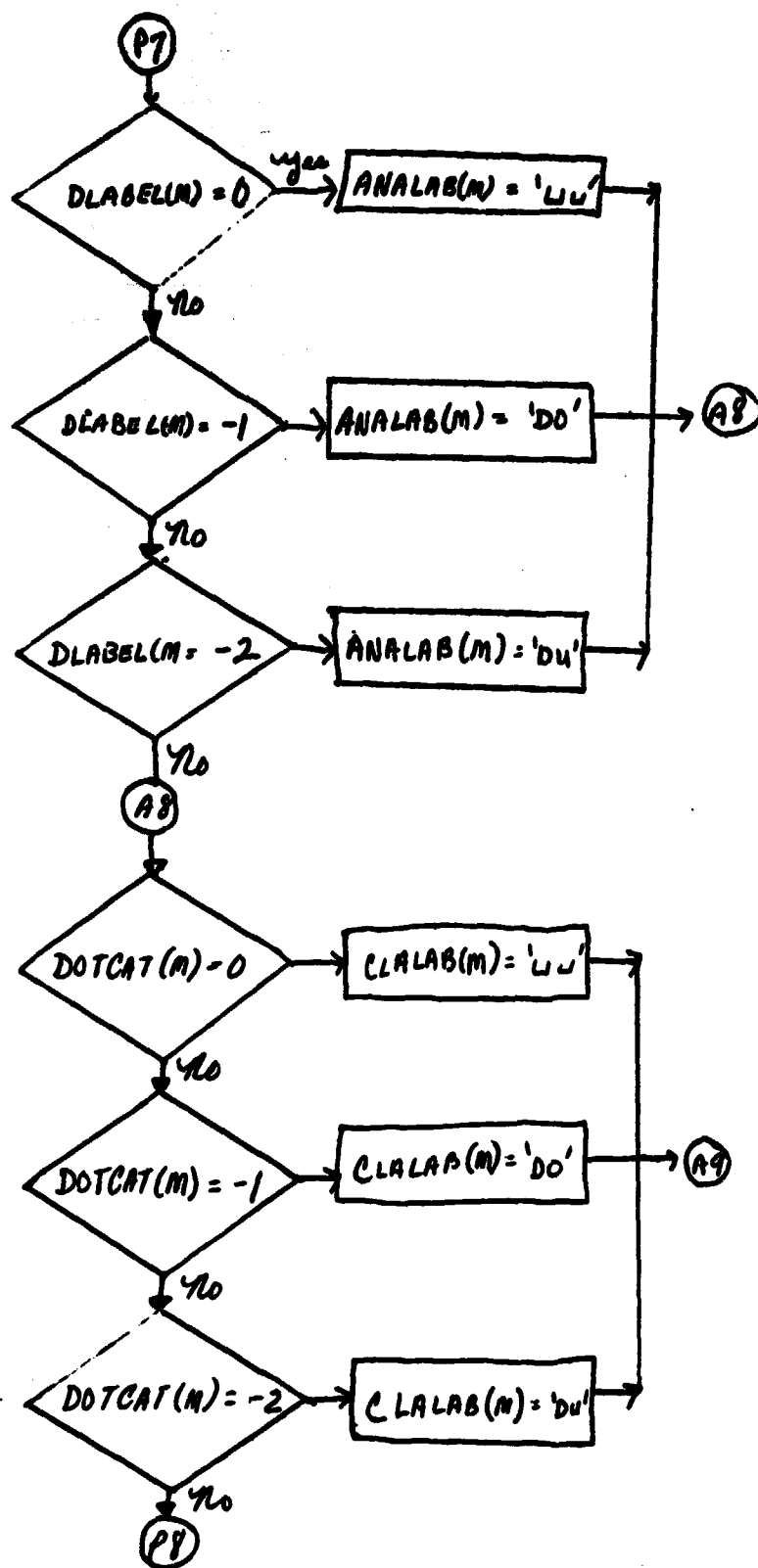
ps





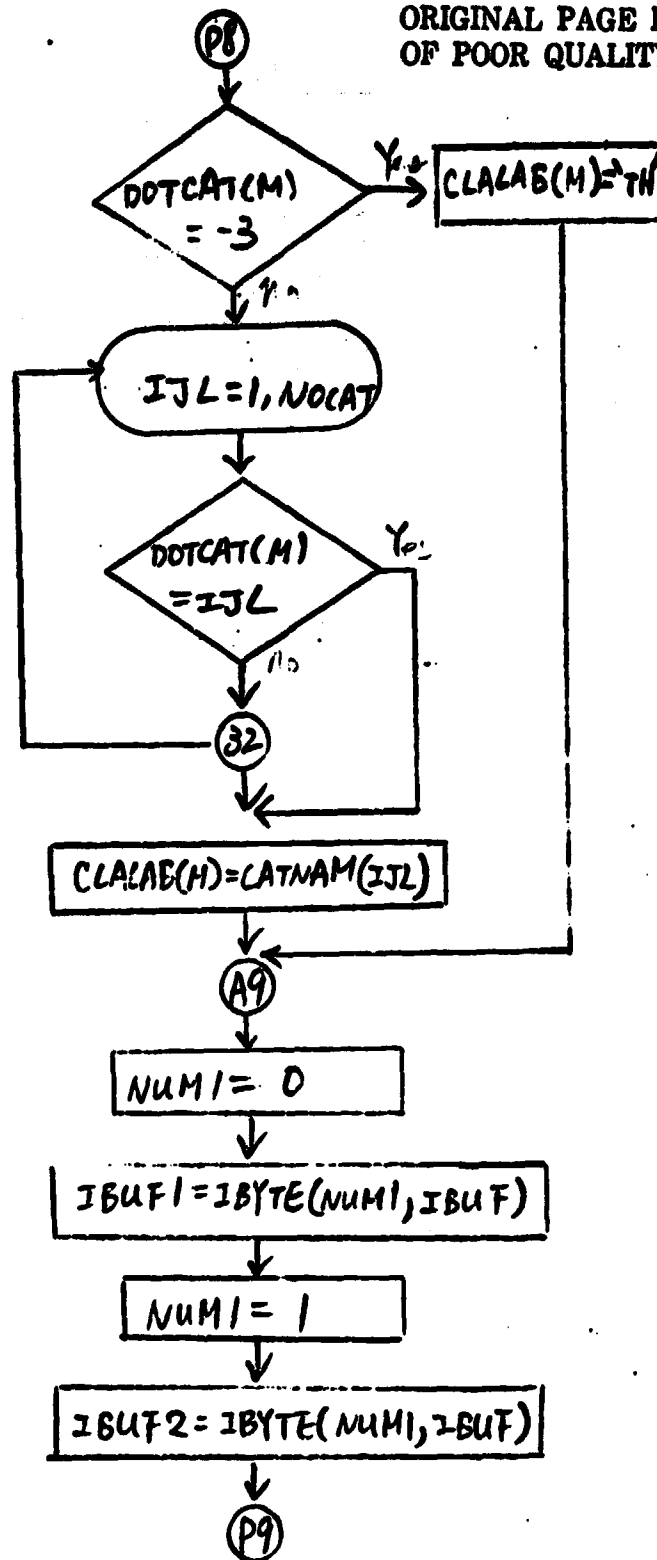
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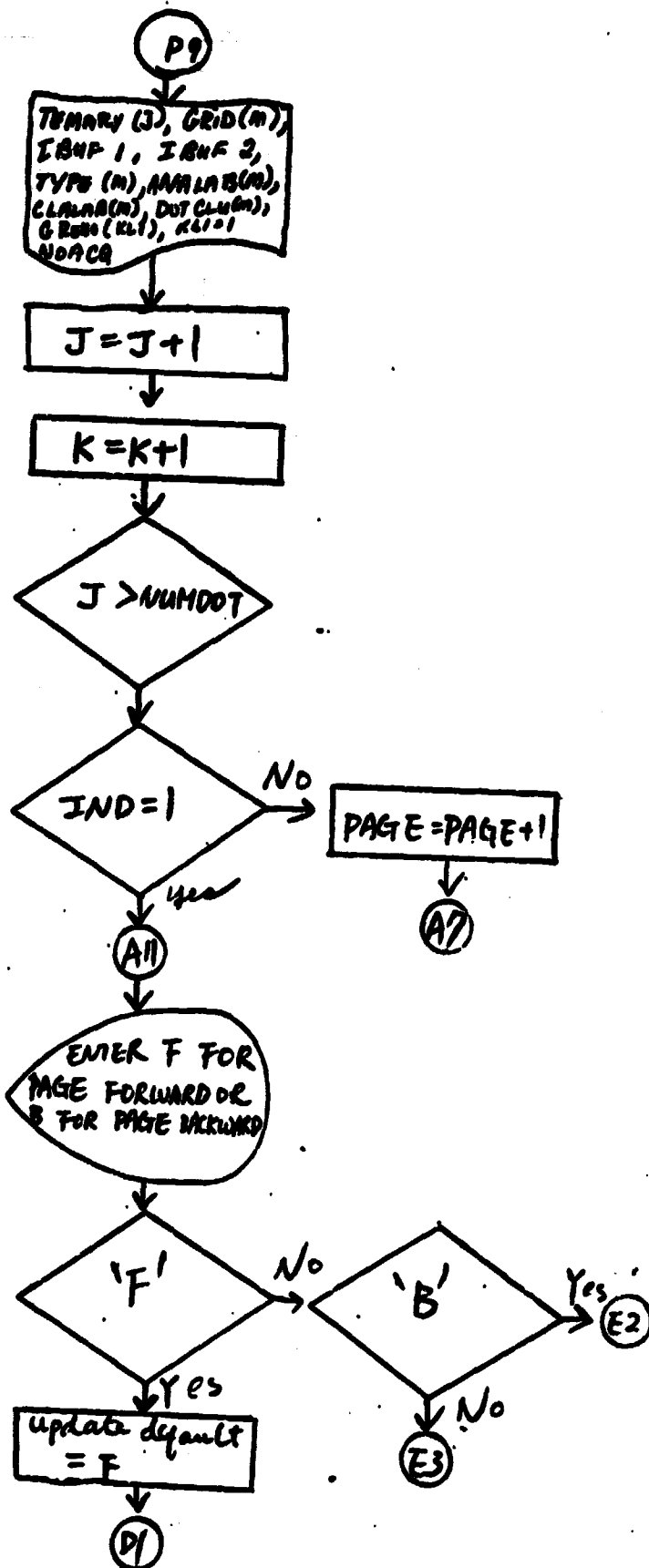


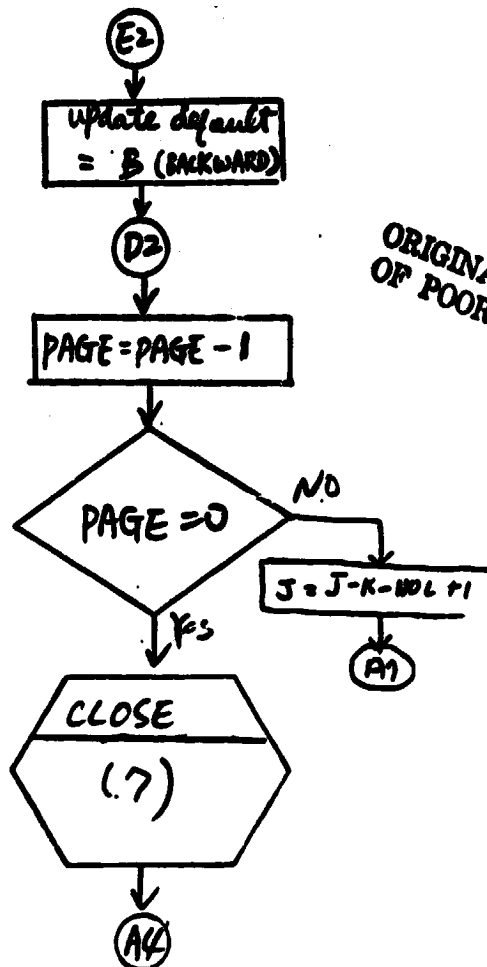
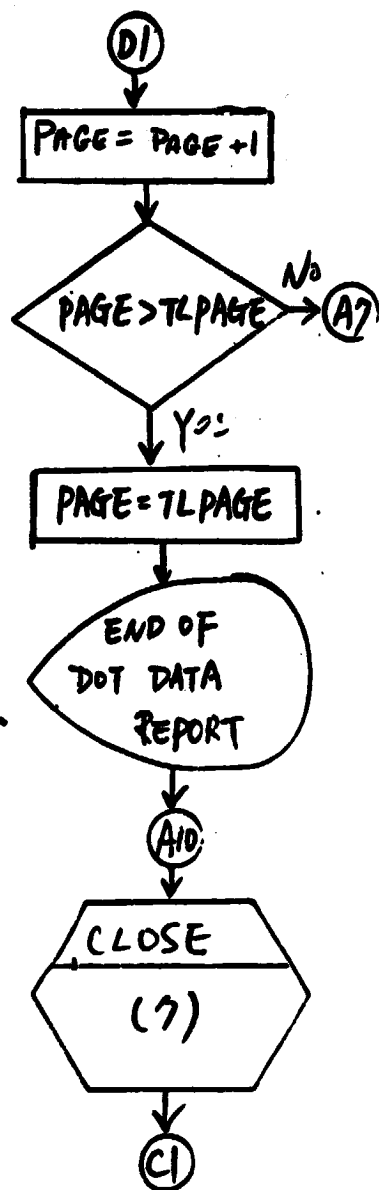


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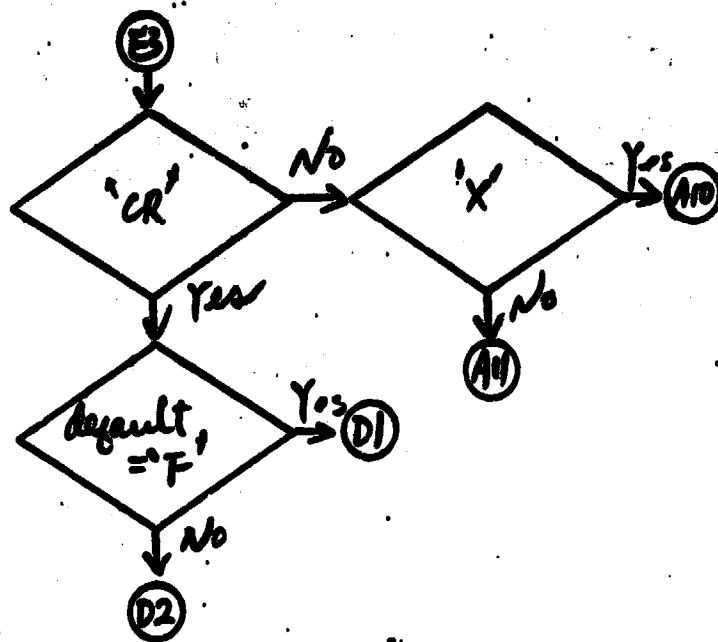




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p12



18. BIAS CORRECTION/CLASSIFICATION SUMMARY BIASCR

```

HFORTRAN IV-PLUS V02-04          16125107    23-JUN-77          PAGE 1
BIASCH,FTN      /TR,BLOCKS/WR
C DRIVER OF UNBIAS REPORT
0001      IMPLICIT INTEGER (A-Z)
0002      INCLUDE 'SY: (300,3)CAMSCOMMON,INC'
0003      INCLUDE 'SY: (300,3)CAMSPARAM,INC'
0004      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=50
      1,MAXV=11,NDOTS=209,CLSKIP=10,DSSKJP=10,MAXACD=6,MAXACC=4,
      2,N2SPWD=6,N2DTWD=10
0005      EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,TX1),(C5,DISKID)
0006      INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)
      C.
0007      INTEGER ACDATE,SUBCAT,SURPOP,CATKNT,CATTH
0008      BYTE CHNVEC,NCHAN,NPSUB,DATCAT,D2TCLU
0009      COMMON/COM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NCHAN,NPSUB,
      1SUBCAT(MAXSUB),SUBPOP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NPD,
      2N2DU,N2TH,D2TCAT(NDOTS),D2TCLU(NDOTS)
      C.
0010      INTEGER ADATES,SUNAZ,ANALST,FLDDAY,D2TDAY,PDATE1,TDATE1
0011      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDM,GRID
0012      BYTE D2FLG,NACD,S2ILGR,S2NEL,NSTART,NTYPE1,ALP,ALP0
0013      BYTE PCTCT,PCTCT0,VAR,VAR0,D2LABEL,TYPE
0014      COMMON/COM2/ISEG,D2FLG,NACD,ADATES(2,MAXACD),S2ILGR(MAXACD),
      1S2NEL(MAXACD),SUNAZ(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),
      2D2TDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
      3PDATE3(2),TDATE3(2),N2CAT,CATNAM(MAXCAT),ALP(MAXCAT),ALP0,
      4      PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0
      C.
0015      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
      1UFLAG4
0016      INTEGER PFLAG,DISKID
0017      COMMON/COM3/PFLAG,DISKID,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1
      1,UFLAG2,UFLAG3,UFLAG4,EFLAG6(MAASLP)
      C.
0018      INTEGER TX1,TY1,IX1,IY1,IX2,IY2,ACDISP,G,B,DTWIND,D2TARY,GMIN,GMAX,FUL
0019      INTEGER SPIND,CLAWND,CLWIND
0020      COMMON/COM4/TX1,TY1,IX1,IY1,IX2,IY2,ACDISP(2),I1(4),G(4),
      1R(4),DTWIND(5),N2DTWD,SPIND(5,N2SPWD),IMWIND(4),N2NDOT,
      2D2TARY(NDOTS),GMIN,GMAX,FUL(2,7),CLAWND(4),CLWIND(8)
      COMMON/COM5/DISKID,RANDM(NDOTS),GRID(NDOTS),D2LABEL(NDOTS),
      1TYPE(NDOTS),RECLCL
0022      REAL D2PCT,DUPCT,TRCT,UPCT,XPCT,RAN1,RVMX,CATPCT(MAXCAT)
0023      BYTE L(74)
0024      COMMON/COM6/D2PCT,DUPCT,TRCT,UPCT,N2DU
0025      COMMON/COM7/D2CAT(MAXCAT),N2TYPE2(MAXCAT),D2D0,D2DU,D2TH,D2X
0026      COMMON/COM8/CATPCT
0027      IX1=1
0028      CALL ELAPSE(IX1)
0029      DFT=1
0030      TPIXL=NPIX*NLIN
0031      K=0
0032      XPIXL=0
0033      DO 9 JJ=1,N2CAT
0034      D2CAT(JJ)=0
0035      N2TYPE2(JJ)=0
0036      CONTINUE
0037      DO 10 II=1,N2CAT
0038      IF (CATNAM(II).EQ. 'X ') GO TO 75

```


BIASCR.FTN /TRI:BLRCKS/WR

```

0039 10 CONTINUE
0040 GO TO 76
0041 75 K=11
0042 XPIXL=CATKNT(K)
0043 76 CONTINUE
0044 DO 5 I1H=1,NOCAT
0045 CALL SELDET(-128,-128,I1H,-128,NODTFD)
0046 DICAT(I1H)=NODTFD
0047 CALL SELDET(2,-128,I1H,-128,NODTFD)
0048 NTYPE2(I1H)=NODTFD
0049 5 CONTINUE
0050 DECM=TPIXL-NODU-NATH-XPIXL
0051 DE 77 I1J=1,NOCAT
0052 IF(I1J.EQ. K) GO TO 78
0053 RMIX=CATKNT(I1J)*100./DECM
0054 GO TO 74
0055 78 RMIX=CATKNT(I1J)*100./TPIXL
0056 74 CONTINUE
0057 CALL GFF(RMIX,CATPCT(I1J))
0058 77 CONTINUE
0059 IF(K.EQ. 0) GO TO 33
0060 GO TO 39
0061 33 XPCT=CATPCT(K)
0062 DIX=DICAT(K)
0063 39 IF(N2D.EQ. 0) GO TO 34
0064 RM1=N2D*100./TPIXL
0065 CALL GFF(RM1,DUPCT)
0066 CALL SELDET(-128,-128,-1,-128,D102)
0067 34 IF(N2D.EQ. 0) GO TO 35
0068 RM1=N2D*100./TPIXL
0069 CALL GFF(RM1,DUPCT)
0070 CALL SELDET(-128,-128,-2,-128,D102)
0071 35 IF(NATH.EQ. 0) GO TO 36
0072 RM1=NATH*100./TPIXL
0073 CALL GFF(RM1,TPCT)
0074 CALL SELDET(-128,-128,-3,-128,D1TH)
0075 36 DPCT=DPCT+TPCT+XPCT
0076 N2D=N2D+NATH+XPIXL
0077 D1=D1D1+NATH+DIX
0078 38 CONTINUE
0079 CALL OUTPUT (27,12)
0080 37 WRITE(6,1011)
0081 1011 FORMAT(1X,'SELECT OPTION:')
0082 WRITE(6,1012)
0083 1012 FORMAT(1X,'(1) UNCORRECTED PROPORTIONS REPORT')
0084 WRITE(6,1013)DFT
0085 1013 FORMAT(3(2) 'BIAS CORRECTION COMPUTATION',5X,12,'>')
0086 CALL OUTPUT (7)
0087 READ(5,100)W
0088 100 FORMAT(74A1)
0089 CALL FRONT(W,74)
0090 IF(A(1).EQ. '1') GO TO 16
0091 IF(A(1).EQ. '2') GO TO 19
0092 IF(A(1).EQ. '3') GO TO 15
0093 IF(A(2).EQ. 'X') GO TO 22
0094 GO TO 37

```



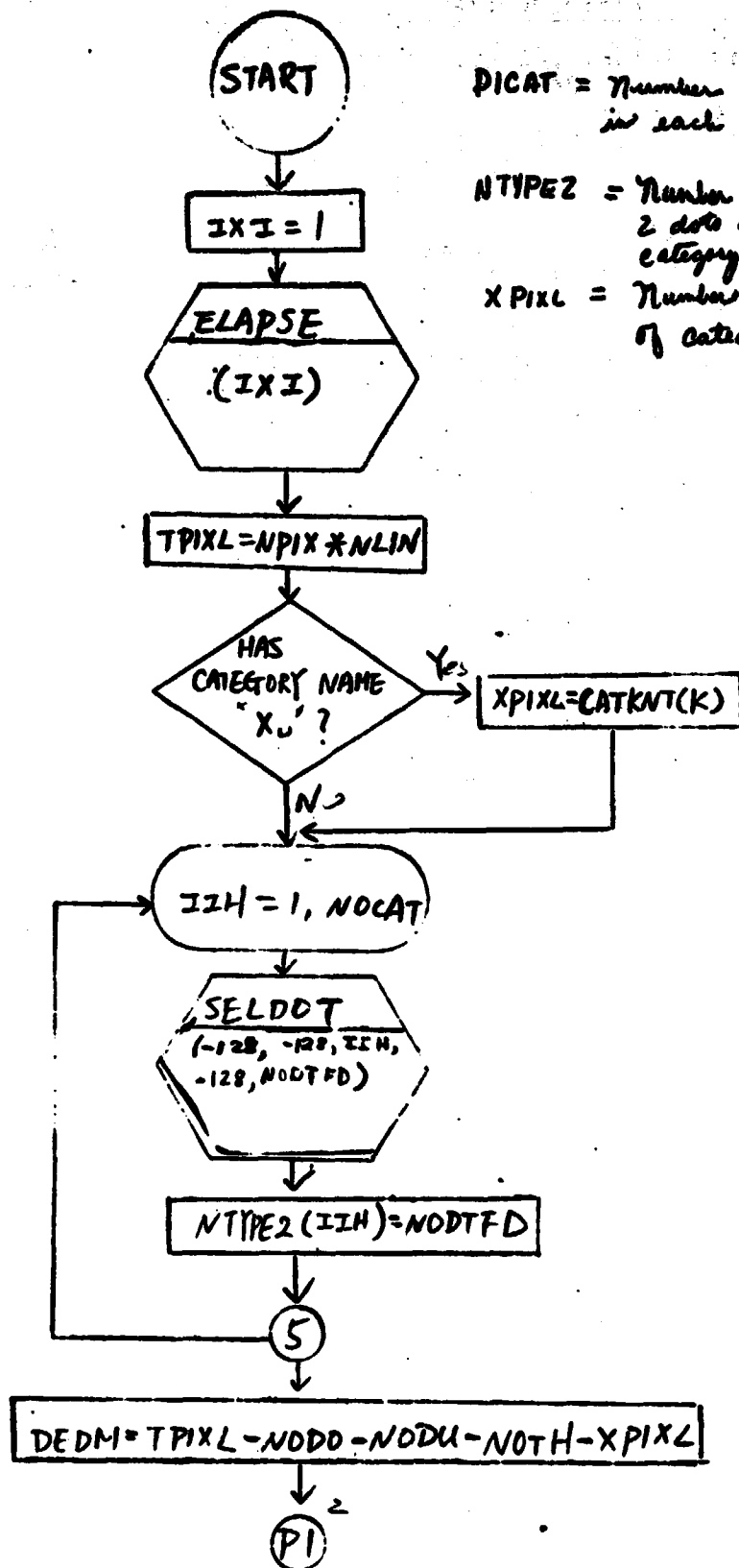
```

0095      15  IF(DFT .EQ. 1) GO TO 17
0096          GO TO 25
0097      16  DFT=1
0098      17  CALL UNBIAS(11)
0099          GO TO (37,37,1702),11
0100      19  DFT=2
0101      25  CONTINUE
0102          CALL BIASCP (IKK)
0103          GO TO (37,37,1702),IKK
0104      1702 CONTINUE
0105          WRITE(6,1040)
0106      - 1060 FORMAT(15(R)ESTART OF F(X)IT ? ')
0107          CALL OUTPUT (7)
0108          READ(6,120) W
0109      120  FORMAT(74A1)
0110          CALL FRONT (W,74)
0111          IF(W(1) .EQ. 121) GO TO 38
0112          IF(W(1) .EQ. 1X1) GO TO 22
0113          GO TO 1702
0114      22  CONTINUE
0115          IX1=7
0116          CALL ELAPSE(IX1)
0117          CALL SETEF(50)
0118          STOP
0119          END

```

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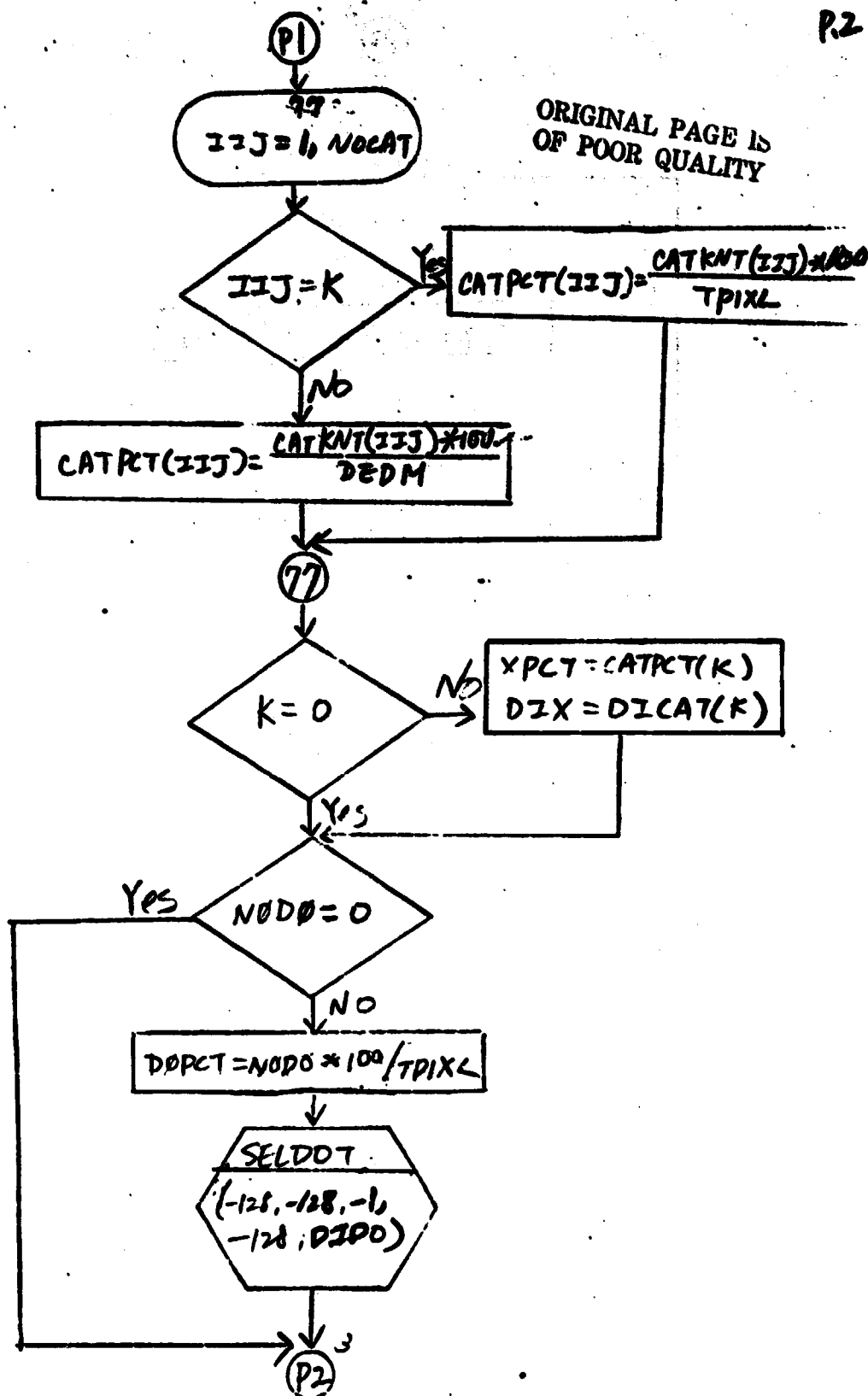
18. BIAS CORRECTION/CLASSIFICATION SUMMARY BIASCR

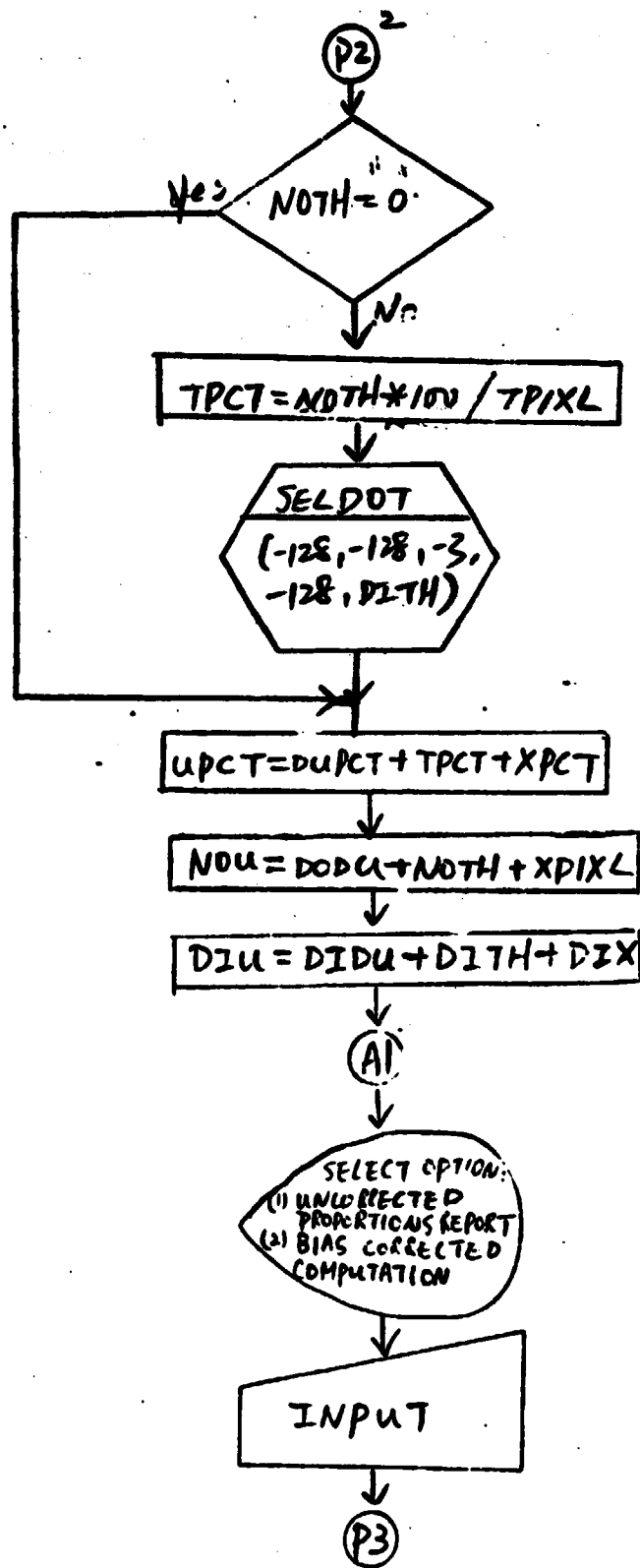


DICAT = Number of dots
in each category.

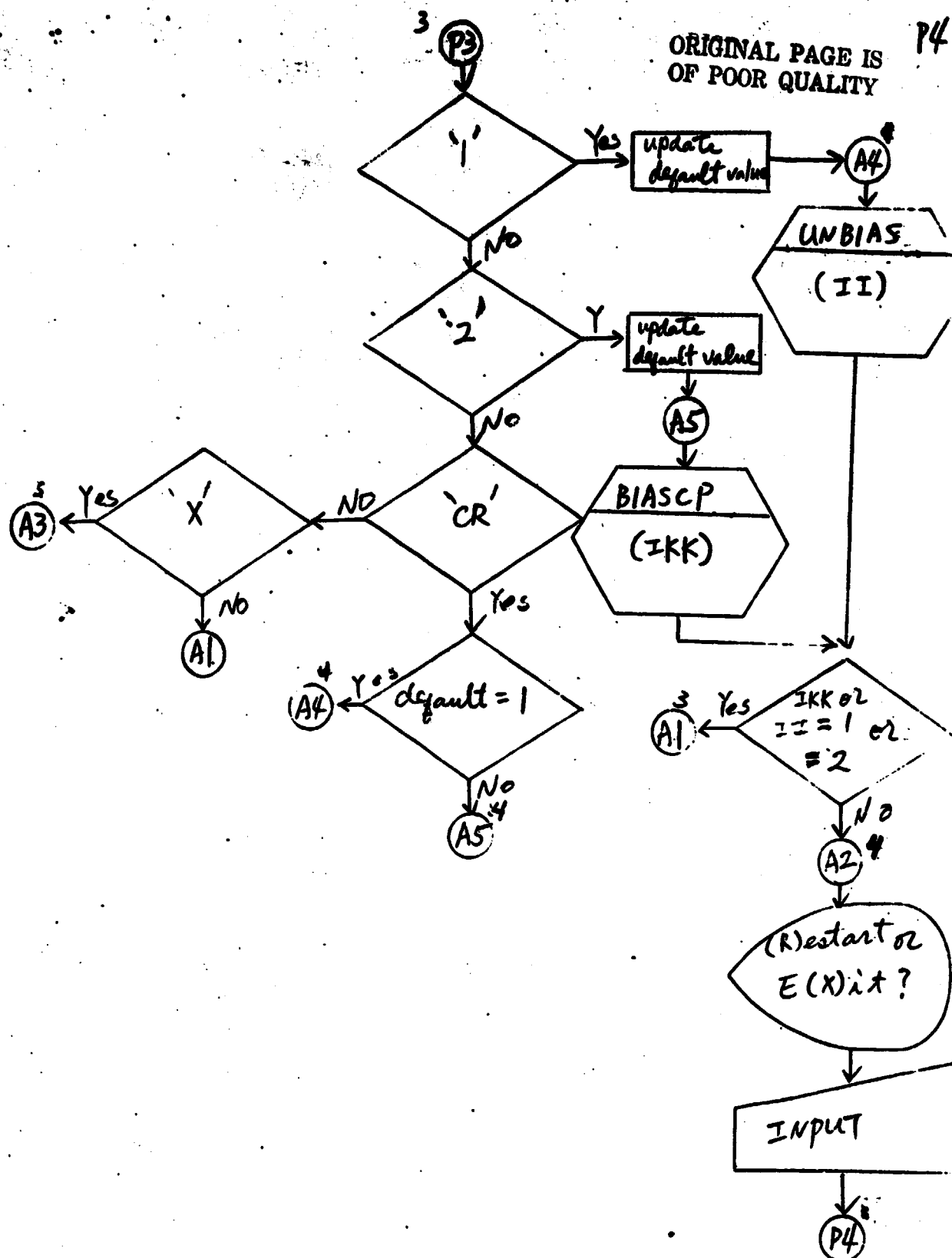
NTYPE2 = Number of type
2 dots in each
category.

XPIXL = Number of pixels
of category X.

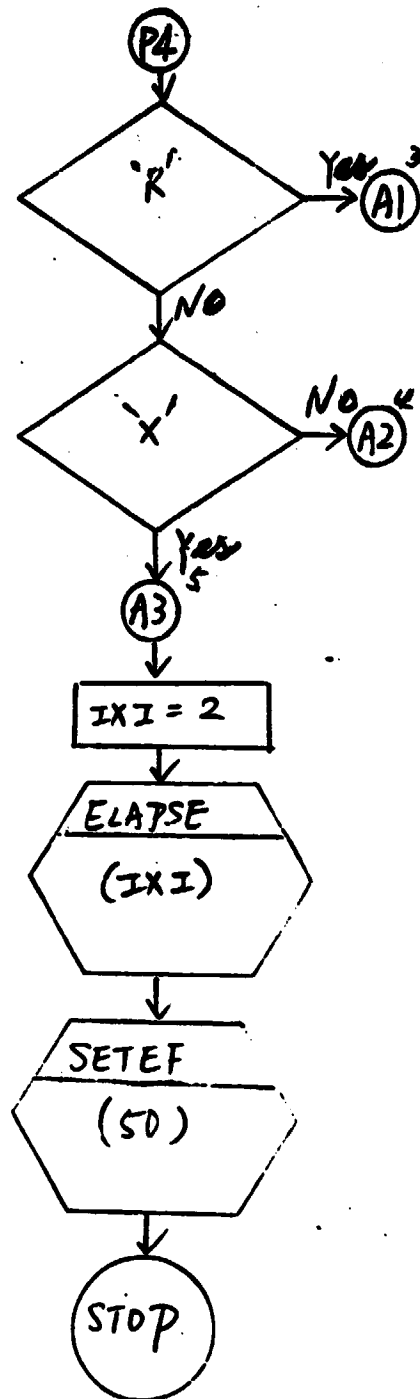




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P5



18.1 SUBROUTINE ROFF

FORTRAN IV-PLUS V02-04

16125128

23-JUN-77

PAGE 7

GLASCH.FTN

/TR:8LOCKS/MR

0001 SUBROUTINE ROFF(RNUM,REFNO)

0002 IMPLICIT INTEGER (A-Z)

0003 REAL RNUM,REFNO

0004 VALUE=RNUM*100

0005 IT1=VALUE/10*10

0006 DIFF1=VALUE-IT1

0007 IF(DIFF1.LT. 5) G2 TO 13

0008 IT1=IT1+10

0009 13 REFNO=IT1/100.

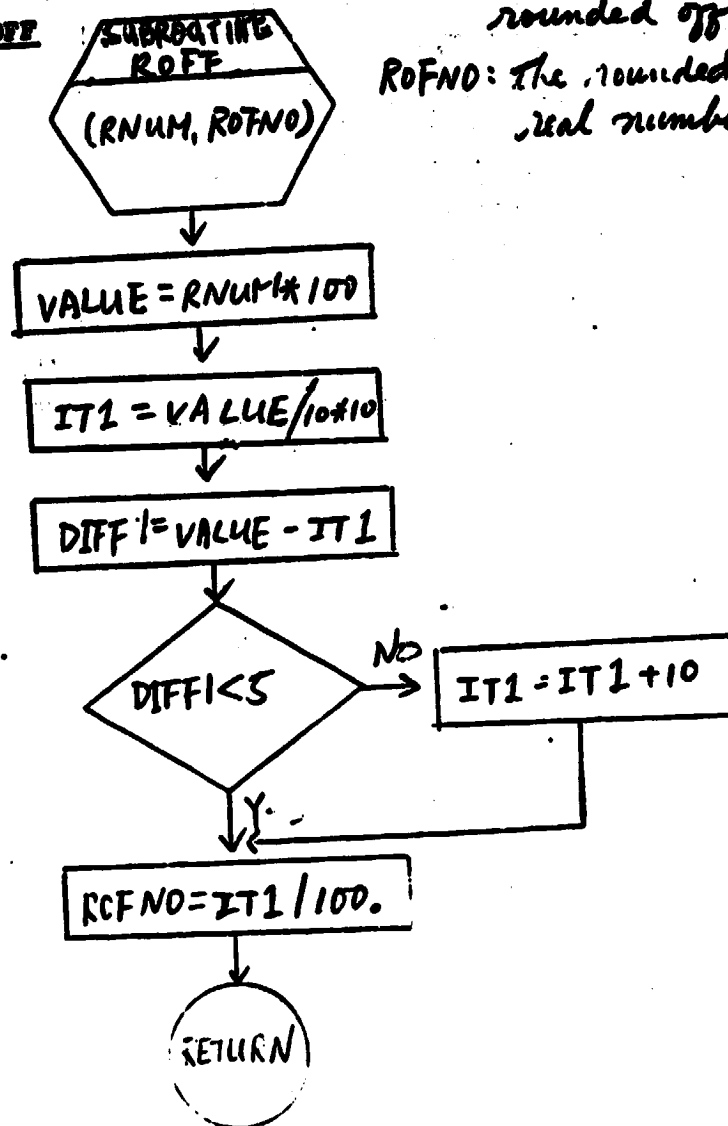
0010 RETURN

0011 END

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18.1 SUBROUTINE ROFF

RNUM: Real no. to be P6
rounded off.
ROFNO: The rounded off
real number.



18.2 SUBROUTINE SELDOT

```

FWRTRAN IV=PLUS_V02=04      16125130    24-JUN-77      PAGE 9
BIASCR.FTN      /TRIBLOCKS/WR
0001      SUBROUTINE SELDOT(DOTYPE,ANACAT,CLACAT,NDDOT,NDDTFD)
0002      IMPLICIT INTEGER (A-Z)
0003      INCLUDE 'SYI(300,3)CAMSCOMON.INC'
0004      INCLUDE 'SYI(300,3)CAMSPARAM.INC'
0005      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLO=50
      1,MAXV=11,NDDTS=209,DLSKIP=10,DSSKIP=10,MAXACD=6,MAXACC=4,
      2,NPSWD=6,NDDTND=10
0006      EQUIVALENCE (C1,ACDATE),(C2,ISEQ),(C3,PFLAG),(C4,TX1),(C5,DISKID)
0007      INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)
      C
0008      INTEGER ACDATE,SUBCAT,SUBPOP,CATKNT,CATTH
0009      BYTE CHNVEC,NCHAN,NPSUB,DOTCAT,DOTCLU
0010      COMMON/COM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NCHAN,NPSUB,
      1SUBCAT(MAXSUB),SUBPOP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NDDT,
      2NDDU,NDTH,DOTCAT(NDDTS),DOTCLU(NDDTS)
      C
0011      INTEGER ADATES,SUNAZ,ANALST,FLDDAY,DOTDAY,PDATE1,TDATE1
0012      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDOM,GRID
0013      BYTE DEFLAG,NQACO,SEILGR,SUNEL,ISTART,NTYPE1,ALP,ALPO
0014      BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE
0015      COMMON/COM2/ISEQ,DEFLAG,NQACO,ADATES(2,MAXACC),SEILGR(MAXACD),
      1SUNEL(MAXACD),SUNAZ(MAXACD),IPDATE(2),ANALST(5),FLDDAY(2),
      2DOTDAY(2),ISTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
      3PDATE3(2),TDATE3(2),NQCAT,CATNAM(MAXCAT),ALP(MAXCAT),ALPO,
      4      PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0
      C
0016      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
      1UFLAG4
0017      INTEGER PFLAG,DSKNT
0018      COMMON/COM3/PFLAG,DSKNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1
      1,UFLAG2,UFLAG3,UFLAG4,VE,L,B(MAXSUB)
      C
0019      INTEGER TX1,TY1,TX2,TY2,ACDISP,G,B,DTWIND,DOTARY,GMIN,GMAX,FUL
0020      INTEGER SPWIND,CLAND,CLUWD
0021      COMMON/COM4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I1(4),G(4),
      1H(4),DTWIND(5),NDTND(5),SPWIND(5),NPSWD(5),INWIND(4),NDDOT,
      2DOTARY(NDDTS),GMIN,GMAX,FUL(2,7),CLAND(5),CLUWD(5)
0022      COMMON/COM5/DISKID,RANDOM(NDDTS),GRID(NDDTS),DLABEL(NDDTS),
      1TYPE(NDDTS),PECLAC
      NDDTFD=0
0023      NP1=1
0024      NP2=1
0025      NP3=1
0026      NP3=1
0027      IF(DOTYPE .EQ. -126) NP1=2
0028      IF(ANACAT .EQ. -126) NP2=2
0029      IF(CLACAT .EQ. -126) NP3=2
0030      DO 5 M=1,NDDTS
0031      GO TO (10,20),NP1
0032      10 IF(TYPE(M) .NE. DOTYPE) GO TO 5
0033      20 GO TO (11,21),NP2
0034      11 IF(DLABEL(M) .NE. ANACAT) GO TO 5
0035      21 GO TO (12,22),NP3
0036      12 IF(DOTCAT(M) .NE. CLACAT) GO TO 5
0037      22 NDDTFD=NDDTFD+1
0038      IF(NDDTFD .EQ. -126) GO TO 5
0039      IF(NDDTFD .GE. NDDT) GO TO 4

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FJRTAV IV-PLUS V02-04
BIASCH,FTN /TR19L0CKS/WR

16125130

23-JUN-77

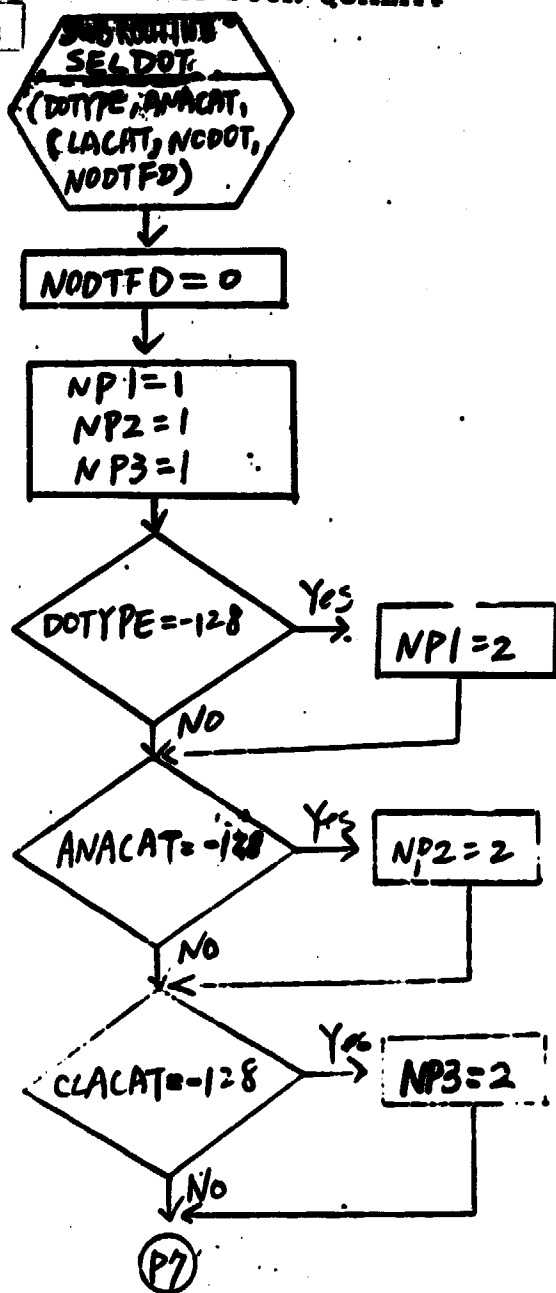
PAGE 10

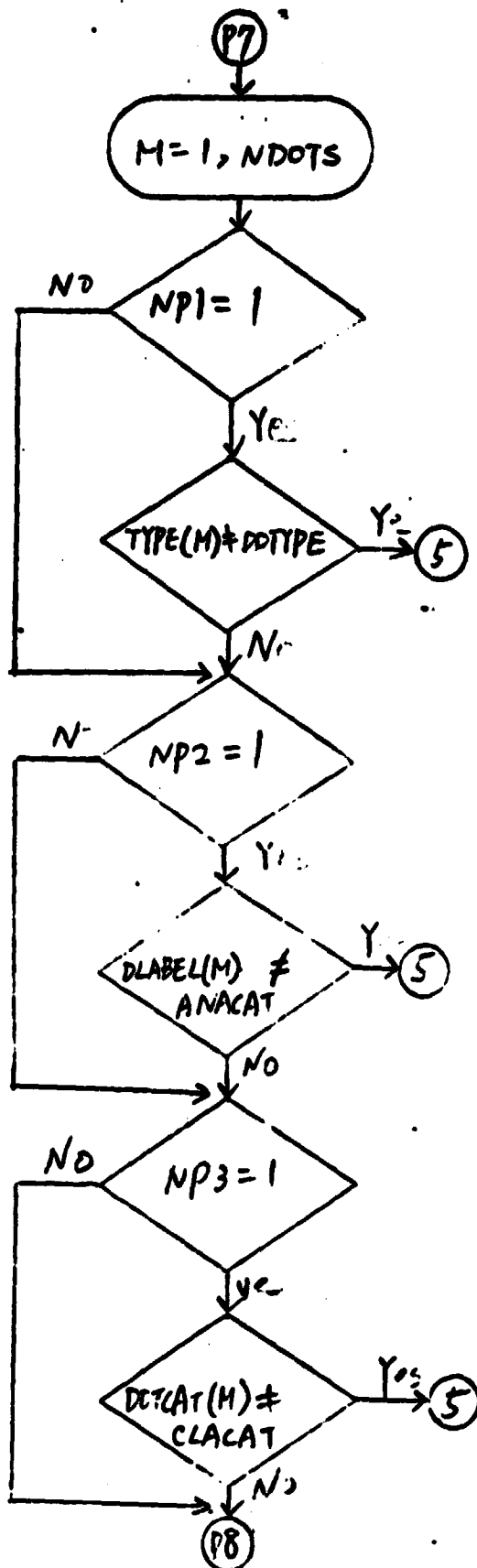
0040 5 CONTINUE
0041 4 RETURN
0042 END

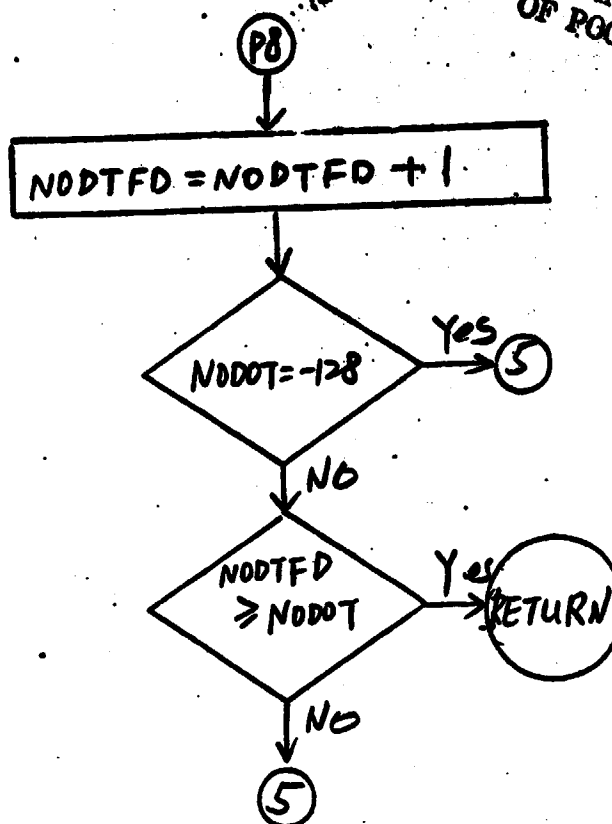
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18.2 SUBROUTINE SELDOT

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18.3 SUBROUTINE UNBIAS

F2RTRAN IV=PLUS V02-04

16125140

23-JUN-77

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BIASCH.FTN

/TRIUMPHS/MR

```

0001 SUBROUTINE UNBIAS(IKK)
0002 IMPLICIT INTEGER (A-Z)
0003 INCLUDE 'SY:[300,3]CAMSCPM2N.INC'
0004 INCLUDE 'SY:[300,3]CAMSPARAM.INC'
0005 PARAMETER MAXCAT=60, MAXSUB=60, MAXCHN=4, NPIX=196, NLIN=117, MAXFLD=50
0006 1, MAXV=11, NDATS=209, DLSKIP=10, DSSKIP=10, MAXACD=6, MAXACC=4,
0007 2NDSPWD=6, NDTWD=10
0008 EQUIVALENCE (C1,ACDATE), (C2,ISEG), (C3,PFLAG), (C4,IX1), (C5,DISKID)
0009 INTEGER C1(469), C2(256), C3(71), C4(348), C5(629)
0010
0011 C*
0012 INTEGER ACDATE, SUBCAT, SUPP2P, CATKNT, CATTH
0013 BYTE CHNVEC, N0CHAN, N0SUB, D2TCAT, D2TCLU
0014 COMMON/CM1/ACDATE(2, MAXACC), CHNVEC(MAXCHN, MAXACC), N0CHAN, N0SUP,
0015 1SUBCAT(MAXSUP), SUPP2P(MAXSUB), CATKNT(MAXCAT), CATTH(MAXCAT), N0DA,
0016 2NADU, N0TH, D2TCAT(ND2TS), D2TCLU(ND2TS)
0017
0018 C*
0019 INTEGER ADATES, SUNA1, ANALST, FLDDAY, D0TDAY, PDATE1, TDATE1
0020 INTEGER PDATE2, TDATE2, PDATE3, TDATE3, CATNAM, DISKID, RANDOM, GRID
0021 BYTE DELFLG, N0ACD, S0ILGR, S0ELL, ISTART, NTYPE1, ALP, ALP2
0022 PCTCT, PCTCT7, VAR, VAR2, DLABEL, TYPE
0023 COMMON/CM2/ISEG, DELFLG, N0ACD, ADATES(2, MAXACD), S0ILGR(MAXACD),
0024 1SUNEL(MAXACD), SUNA2(MAXACD), IDATE(2), ANALST(5), FLDDAY(2),
0025 2D0TDAY(2), ISTART, NTYPE1, PDATE1(2), TDATE1(2), PDATE2(2), TDATE2(2),
0026 3PDATE3(2), TDATE3(2), N0CAT, CATNAM(MAXCAT), ALP(MAXCAT), ALP2,
0027 4 PCTCT(MAXCAT), PCTCT7, VAR(MAXCAT), VAR2
0028
0029 C*
0030 INTEGER EFLAG1, EFLAG2, EFLAG3, EFLAG4, EFLAG5, UFLAG1, UFLAG2, UFLAG3,
0031 1UFLAG4
0032 INTEGER PFLAG, DSKMNT
0033 COMMON/CM3/PFLAG, DSKMNT, EFLAG1, EFLAG2, EFLAG3, EFLAG4, EFLAG5, UFLAG1,
0034 1UFLAG2, UFLAG3, UFLAG4, NEALAB(MAXSUB)
0035
0036 C*
0037 INTEGER IX1, TY1, TX2, TY2, ACNISP, G, B, DTWIND, DETARY, GMIN, GMAX, FUL
0038 INTEGER SPININ, CLAMP, CLUW, C
0039 COMMON/CM4/IX1, TY1, TX2, TY2, IX1, IV1, IX2, IV2, ACNISP(2), I11(4), G(4),
0040 1P(4), GMIN(5), D0T(5), SPIN(5, N0SPWD), INWIND(4), NUMD01,
0041 2DETARY(ND2TS), GMIN, GMAX, FUL(2, 7), CLAMP(8), CLUW(8)
0042 COMMON/CM5/DISKID, RANDOM(ND2TS), GRID(ND2TS), DLABEL(ND2TS),
0043 1TYPE(ND2TS), REFLG
0044 REAL DUPCT, DUPCT, TPCT, UPCT, XPCT, CATPCT(MAXCAT)
0045 BYTE A(74), TIN(8), DEFA(2)
0046 COMMON/JO1/DUPCT, DUPCT, TPCT, UPCT, XPCT, NCU
0047 COMMON/JO2/D2TCAT(MAXCAT), ATYPE2(MAXCAT), DIND, DIDU, DITH, DIX
0048 COMMON/JO3/CATPCT
0049 PRINT=1
0050 DEFA(1)='I'
0051 DEFA(2)='K'
0052 PRINT=ACAT
0053 CONTINUE
0054 CALL OUTPUT (27, 12)
0055 21 WRITE(6, 1000)
0056 1000 FORMAT(1X, 'SELECT OUTPUT DEVICE:')
0057 21 WRITE(6, 1005) DEFA(1)
0058 1005 FORMAT(1X, 6)OLD PRINTER, (1)THE PRINTER OR (Y)TERMINAL ', A1, ' >')
0059 CALL OUTPUT (7)
0060 READ(6, 2001)

```


BIASCR.FTN /TR:BLOCKS/NR

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0040      200 FORMAT(74A1)
0041      IF(W(1).EQ.'G') GO TO 80
0042      IF(W(1).EQ.'L') GO TO 90
0043      IF(W(1).EQ.'T') GO TO 10
0044      IF(W(1).EQ.' ') GO TO 30
0045      GO TO 21
0046      30 IF(DEFAULT(1).EQ.'T') GO TO 12
0047      IF(DEFAULT(1).EQ.' ') GO TO 92
0048      GO TO 92
0049      400 CONTINUE
0050      IF(DUPCT.EQ.0.) GO TO 39
0051      PNUM=PNUM+1
0052      JDI=PNUM
0053      39 IF(DUPCT.EQ.0.) GO TO 32
0054      PNUM=PNUM+1
0055      JDI=PNUM
0056      32 IF(UPCT.EQ.0.) GO TO 33
0057      PNUM=PNUM+1
0058      JDI=PNUM
0059      33 IF(UPCT.EQ.0.) GO TO 34
0060      PNUM=PNUM+1
0061      44 CONTINUE
0062      TLPAGE=PNUM/NAL
0063      LTNUM=PNUM-NAL*TLPAGE
0064      IF(LTNUM.GT.0) TLPAGE=TLPAGE+1
0065      GO TO 27
0066      10 DEFAULT(1)='T'
0067      12 CONTINUE
0068      CALL ASSIGN(7,'TI')
0069      CALL OUTPUT(27,12)
0070      IND=1
0071      NAL=8
0072      GO TO 400
0073      40 DEFAULT(1)='G'
0074      82 CALL ASSIGN(7,'GP')
0075      IND=2
0076      NAL=25
0077      GO TO 400
0078      90 DEFAULT(1)='L'
0079      92 CALL ASSIGN(7,'LP')
0080      IND=3
0081      NAL=25
0082      GO TO 400
0083      27 CONTINUE
0084      J=1
0085      PAGE=1
0086      260 CONTINUE
0087      CALL IDATE(MO, DAY, YR)
0088      WRITE(7,1010)ISEG,MZ, DAY, YR
0089      1010 FORMAT(1X,T5,'SEGMENT ID ',14,T50,'DATE',12,'/',12,'/',12,
1090      14X,'PAGE')
0090      CALL TIME(TIM)
0091      WRITE(7,1015)TIM,PAGE,TLPAGE
0092      1015 FORMAT(1X,T50,'TIME',8A1,T64,13,' OF ',13)
0093      WRITE(7,1020)((ADATES(I,JJ),I=1,2),JJ=1,NRACO)
0094      1020 FORMAT(1X,T5,'ACQUISITION DATE(S) ',12I3)

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```
0095 WRITE(7,9000)
0096 9700 FORMAT(50X)
0097 WRITE(7,1025)
0098 1125 FORMAT(1X,T8,'***CLASSIFIED CATEGORY PROPORTIONS (UNCORRECTED)',
1'***')
0099 WRITE(7,9000)
0100 K=1
0101 WRITE(7,1030)
0102 1030 FORMAT(1X,T5,'CATEGORY',T10,'#PIXELS',T30,'XPIXELS',T42,
1'#DPTS IN',T55,'#TYPE 2',/,T42,'CATEGORY',T55,'DPTS')
0103 WRITE(7,9000)
0104 GO TO (23,72,73,74,75),PRINT
0105 23 CONTINUE
0106 WRITE(7,1035) CATNAM(J),CATKAT(J),CATPCT(J),DICAT(J),NTYPE2(J)
0107 1035 FORMAT(1X,T11,A2.7X,15.6X,F4.1,10X,13.9X,13,/)
0108 J=J+1
0109 K=K+1
0110 IF(J.GT.1000) GO TO 159
0111 IF(K.LE.100) GO TO 72
0112 GO TO (16,14,14),I=1
0113 140 CONTINUE
0114 IF(DUPCT.EQ.0.) GO TO 61
0115 PRINT=2
0116 CALL SFIDBT(-128,-128,-1,-128,DIDL)
0117 IF(K.LE.100) GO TO 72
0118 GO TO (16,14,14),I=1
0119 72 WRITE(7,1036) 1000.DUPCT,DIDL
0120 1036 FORMAT(1X,T11,'000'.7X,15.6X,F4.1,10X,13,/)
0121 J=J+1
0122 JDU=J-1
0123 K=K+1
0124 61 IF(DUPCT.EQ.0.) GO TO 63
0125 PRINT=3
0126 CALL SFIDBT(-128,-128,-2,-128,DIDL)
0127 IF(K.LE.100) GO TO 73
0128 GO TO (16,14,14),I=1
0129 73 WRITE(7,1037) 1000.DUPCT,DIDL
0130 1037 FORMAT(1X,T11,'000'.7X,15.6X,F4.1,10X,13,/)
0131 J=J+1
0132 JDU=J-1
0133 K=K+1
0134 63 IF(TPCT.EQ.0.) GO TO 65
0135 PRINT=4
0136 CALL SFIDBT(-128,-128,-3,-128,DITH)
0137 IF(K.LE.100) GO TO 74
0138 GO TO (16,14,14),I=1
0139 74 WRITE(7,1038) 1000.TPCT,DITH
0140 1038 FORMAT(1X,T11,'000'.7X,15.6X,F4.1,10X,13,/)
0141 J=J+1
0142 JTH=J-1
0143 K=K+1
0144 65 IF(CPCT.EQ.0.) GO TO 12
0145 PRINT=5
0146 DIO=DIDU+DITH+DIX
0147 IF(K.LE.100) GO TO 75
0148 GO TO (16,14,14),I=1
```


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0149      75 WRITE(7,1039) NBU,UPCT,DIU
0150      1039 FORMAT(1X,T4,'TOTAL UN-1/,T3,'IDENTIFIABLE',5X,15,8X,F4,1,
      110X,13,/,T7,'PIXELS')
0151      JU=J
0152      19 GO TO (16,220,220).IND
0153      16 WRITE(7,9000)
0154      161 WRITE(7,1040) JEFAL(2)
0155      1040 FORMAT('ENTER "F" FOR PAGE FORWARD OR "B" FOR PAGE BACKWARD ',
      1A1,1 >')
0156      CALL OUTPUT (7)
0157      READ(6,110) M
0158      110 FORMAT(74A1)
0159      CALL FRONT(M,74)
0160      IF(M(1).EQ.'F') GO TO 31
0161      IF(M(1).EQ.'B') GO TO 251
0162      IF(M(1).EQ.' ') GO TO 251
0163      IF(M(1).EQ.'X') GO TO 220
0164      CALL OUTPUT (27,12)
0165      GO TO 161
0166      251 IF(JEFAL(2).EQ.'F') GO TO 31
0167      GO TO 25
0168      250 JEFAL(2)=M(1)
0169      25 PAGE=PAGE-1
0170      IF(PAGE.EQ.0) GO TO 29
0171      GO TO 28
0172      29 CALL OUTPUT (27,12)
0173      GO TO 220
0174      25 JU=J-NBU+1
0175      220 CONTINUE
0176      IF(J.LE.NBU) PRINT=1
0177      IF(J.EQ.JDU) PRINT=2
0178      IF(J.EQ.JDU) PRINT=3
0179      IF(J.EQ.JTH) PRINT=4
0180      IF(J.EQ.JU) PRINT=5
0181      CALL OUTPUT (27,12)
0182      GO TO 260
0183      31 CONTINUE
0184      JEFAL(2)=M(1)
0185      PAGE=PAGE+1
0186      IF(PAGE.GT.TLPAGE) GO TO 131
0187      GO TO 220
0188      131 CALL OUTPUT (27,12)
0189      PAGE=TLPAGE
0190      WRITE(7,1054)
0191      1054 FORMAT(1X,'END OF UNCORRECTED PROPORTIONS REPORT !!!',/)
0192      GO TO 220
0193      14 CONTINUE
0194      PAGE=PAGE+1
0195      WRITE(7,1055)
0196      1055 FORMAT('1')
0197      GO TO 260
0198      220 CONTINUE
0199      CALL CLOSE (7)
0200      IKK=3
0201      RETURN
0202      END

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18.3 SUBROUTINE UNBIAS

A flow chart for this subroutine is not available.

~~52-20~~

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[illegible]

```

IMPLICIT INTEGER (0-2)
INCLUDE 'SYI(300,3)CAMSCOMON.ING'
  BYTE TIM(6),DFUT
  REAL VARPCT,CATPCT,CORPCT
  REAL TOTCT
  REAL UPCT0,PCT0
  REAL UTOTCT
  COMMON/JCOM3/CATPCT
  COMMON/SCOM1/ALH(MAXCAT+1,MAXCAT+1),VARPCT(MAXCAT)
X,S,CORPCT(MAXCAT),TOTCT,UTOTCT,CATINT(MAXCAT)
  DIMENSION CATPCT(MAXCAT)
  DIMENSION W(37),KSI(6)

```



```

540 FORMAT(1X, /2X, 'ANALYST CLASSIFIER LABELLED CATEGORY' /
X2X, 'LABELLED', /2X, 'CATEGORY', 5X, A2, 5(5X, A2))
KK=0
KF1=1
544 KF1=KF1+KK
KK=KK+1
IF(KF1.GT.KF2) GO TO 548
IF(NOCAT.LT.6) KS2=NOCAT
IF(NOCAT.LT.6) KF2=NOCAT
IF(IPBINT.EQ.1) WRITE(7,546) CATNAM(KF1), (ALH(KF1,J), J=KS1,KS2)
KF=CATINT(KF1)
IF(KF.EQ.0) GO TO 544
IF(IPBINT.EQ.2) WRITE(7,545) CATNAM(KF), CATPCT(KF),
XCORPCT(KF), VARPCT(KF)
545 FORMAT(6X, A2, 12X, F4, 1, 12X, F4, 1, 10X, F4, 1)
546 FORMAT(1X, 3X, A2, 6X, 6(2X, F5, 2))
GO TO 544
548 CONTINUE
UPCTB=100,0-UTOTCT
PCTB=100,0-TOTCT
IF (IPBINT.EQ.2) WRITE(7,552) UPCTB, PCTB
552 FORMAT(/2X, 'OTHER', 13X, F4, 1, 12X, F4, 1 /)
IF (KF2.GE.NOCAT.AND.KS2.GE.NOCAT) GO TO 542
WRITE(6,550)
550 FORMAT(1X, /, ' TYPE (F), TO PAGE FORWARD, (S) TO PAGE SIDENAY ', /
X'(S) (CR) FOR PAGE FORWARD, E(X) IT >')
LFLAG=0
GFLAG=0
ISW=0
READ(6,560) W
560 FORMAT(37A2)
CALL FRONT(W,37)
IF(W(1).EQ.'B ' .OR. W(1).EQ.'X ') CLOSE(UNIT=7)
IF(W(1).EQ.'R ') GO TO 10
IF(W(1).EQ.'F ' .OR. W(1).EQ.' ') GO TO 570
IF(W(1).EQ.'X ') GO TO 1000
IF(W(1).EQ.'S ') GO TO 540
WRITE(6,590)
590 FORMAT(1X, /, 1X, 'INVALID INPUT ...TRY AGAIN')
GO TO 542
591 CONTINUE
542 CLOSE(UNIT=7)
IF(IPBINT.EQ.1) GO TO 611
WRITE(6,561)
561 FORMAT('S ALPHA TABLE REPORT? (Y)ES/(N)O >')
READ(6,562) W
562 FORMAT(37A2)
CALL FRONT(W,37)
IF(W(1).EQ.'Y ') GO TO 533
IF(W(1).EQ.'N ') GO TO 611
IF(W(1).EQ.'X ') GO TO 611
WRITE(6,590)
GO TO 591
570 IF((KF2+1).GE. MAXCAT) GO TO 542
IF(CATNAM(KF2+1).EQ.' ') GO TO 542
KF1=KF1+6
KF2=KF2+6
IF(KF2.GE.NOCAT+6) GO TO 504
IF(KF2.GT.NOCAT) KF2=NOCAT
GO TO 530
580 KS1=KS1+6
KS2=KS2+6
IF(KS2.GE.NOCAT+6) GO TO 504
IF(KS2.GT.NOCAT) KS2=NOCAT
GO TO 530
1000 CONTINUE

```



```

541 FORMAT(1X, / 2X, 'CATEGORY', 5X, 'UNCORRECTED', 5X, 'CORRECTED', 5X,
X 'ESTIMATED', / 15X, 'PERCENTAGE', 6X, 'PERCENTAGE', 4X, 'VARIANCE', /)
538 FORMAT(1X, // 1X, 'ACQUISITION DATE(S) ', 12I3,
X // 8X, 'CORRECTED PROPORTIONS AND VARIANCES')
532 FORMAT( 1X, 'SEGMENT ID ', 14, 20X, 'DATE', 12, '/', 12, '/',
X 12, '/', 2X, 12, / 36X, 'TIME', 8A1)
533      IP01: T=1
      GO TO 10
611      IX=3
539      CONTINUE
      RETURN
      END

```

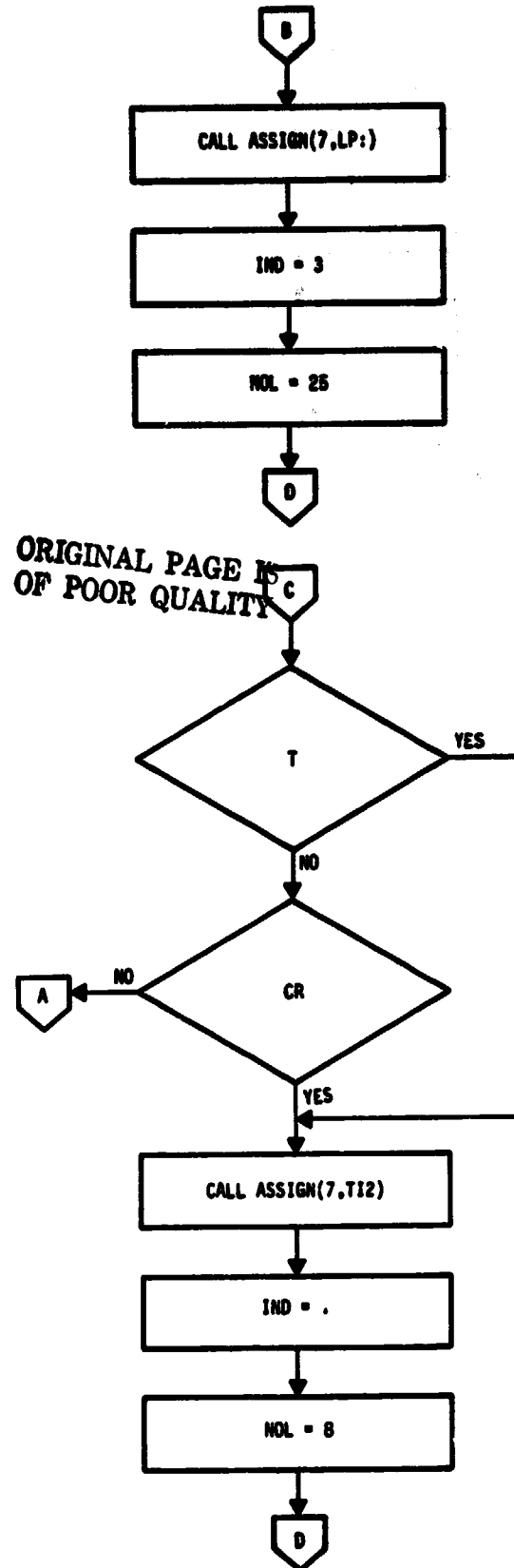
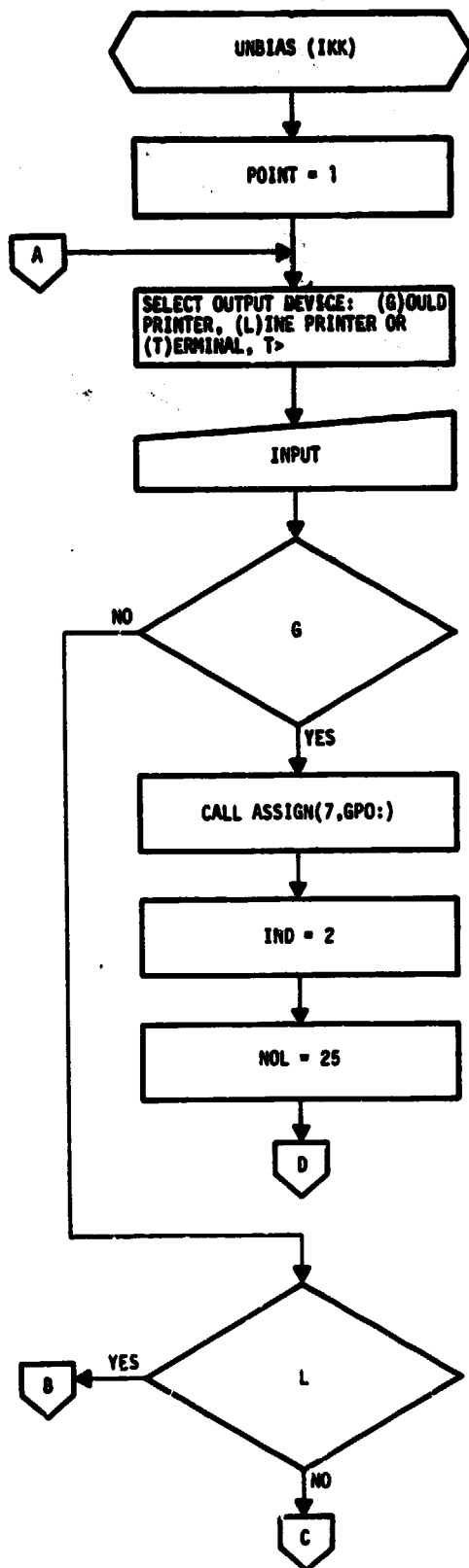
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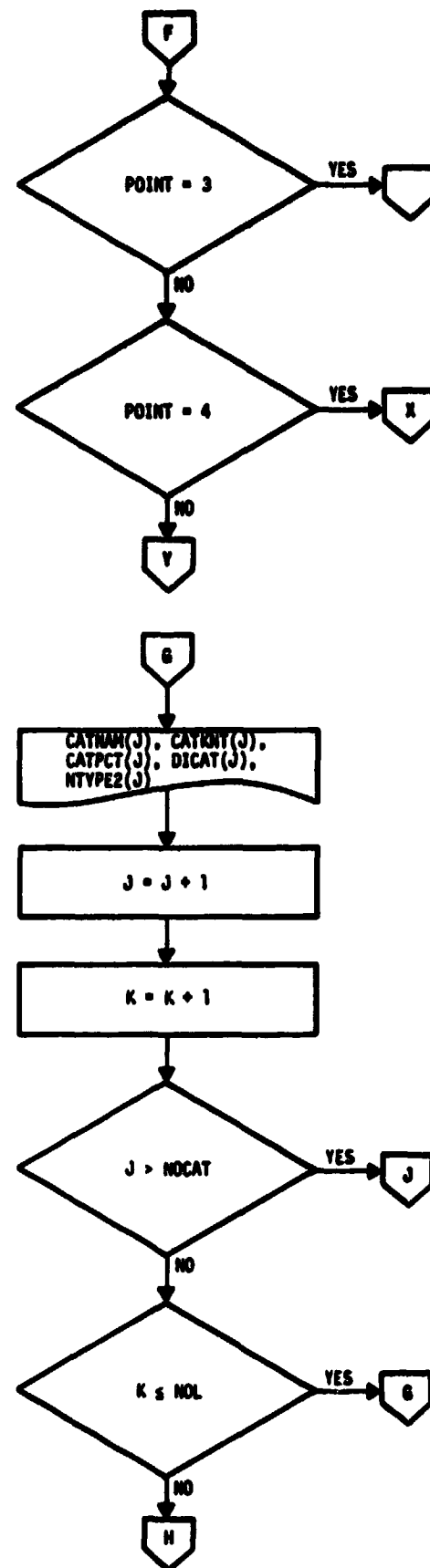
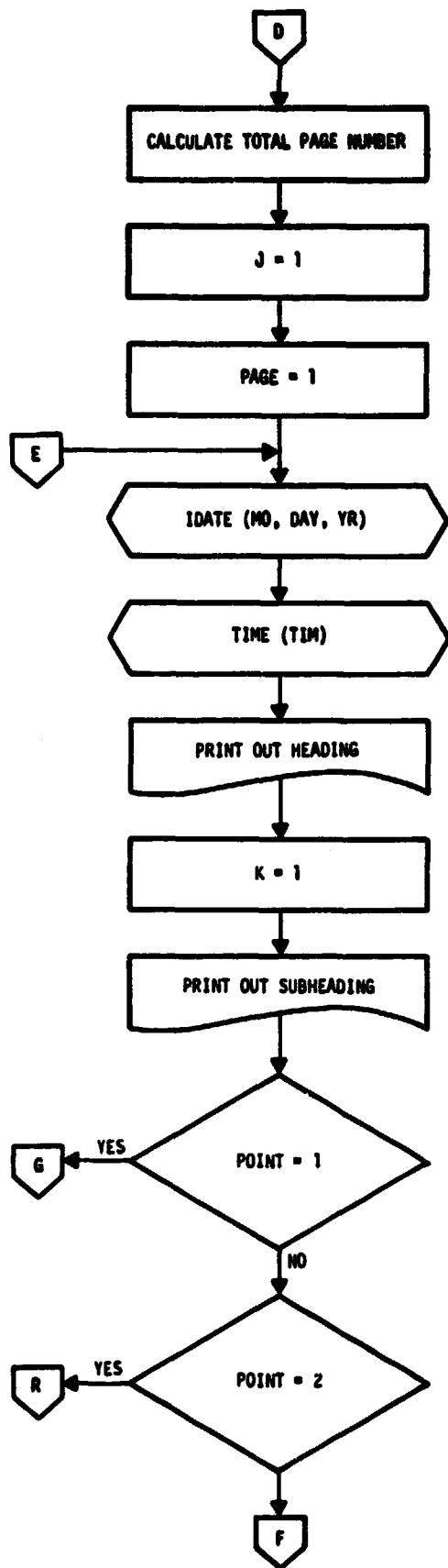
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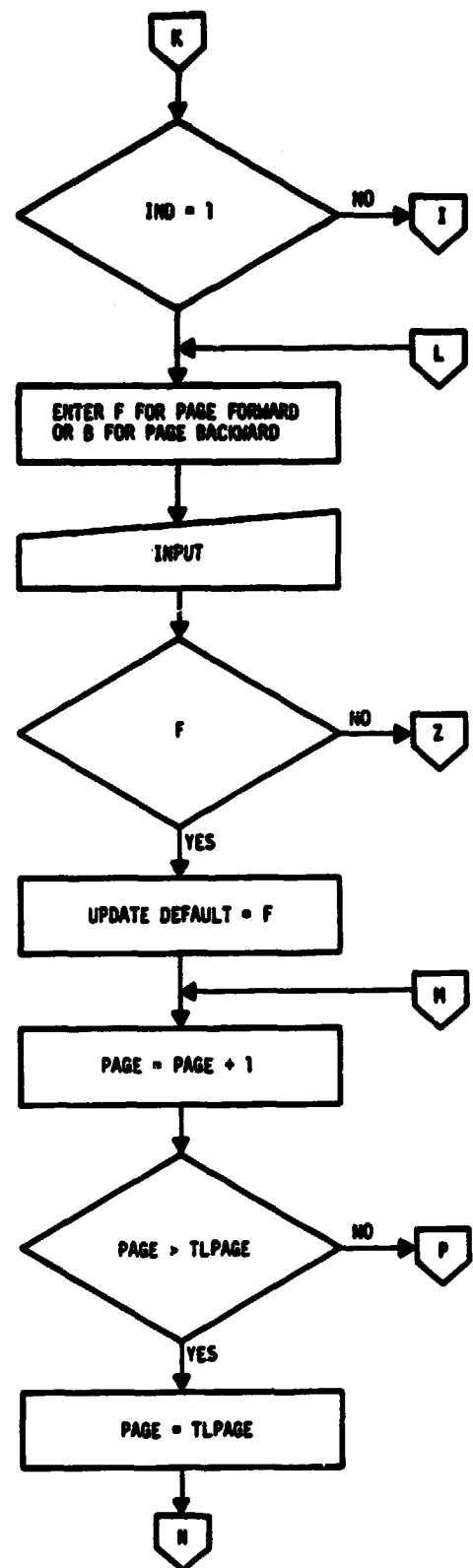
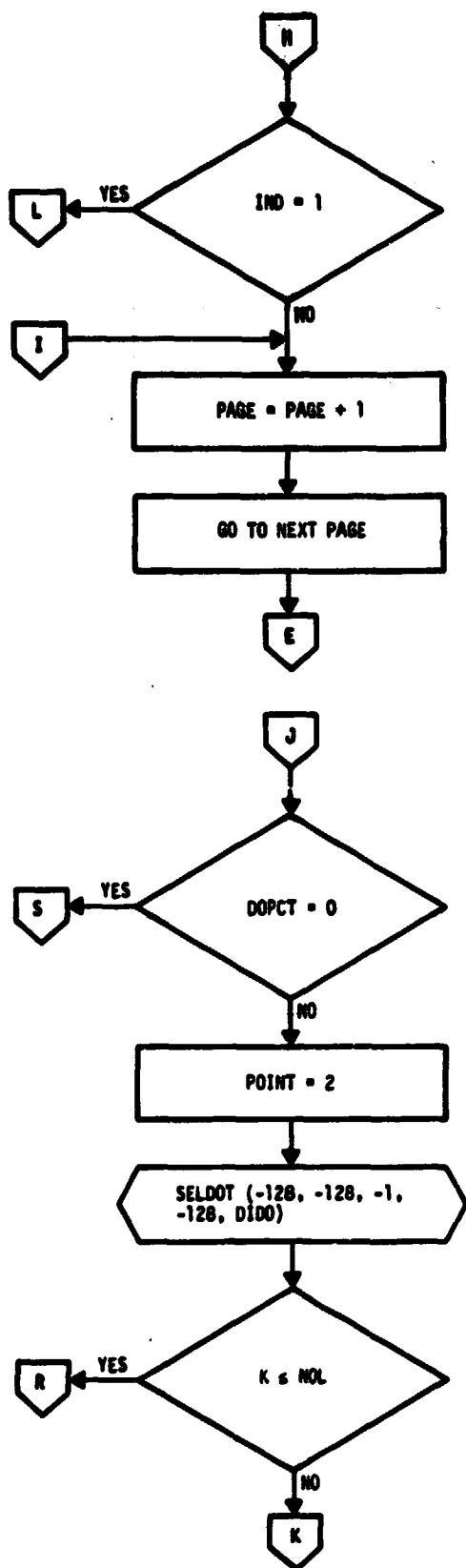


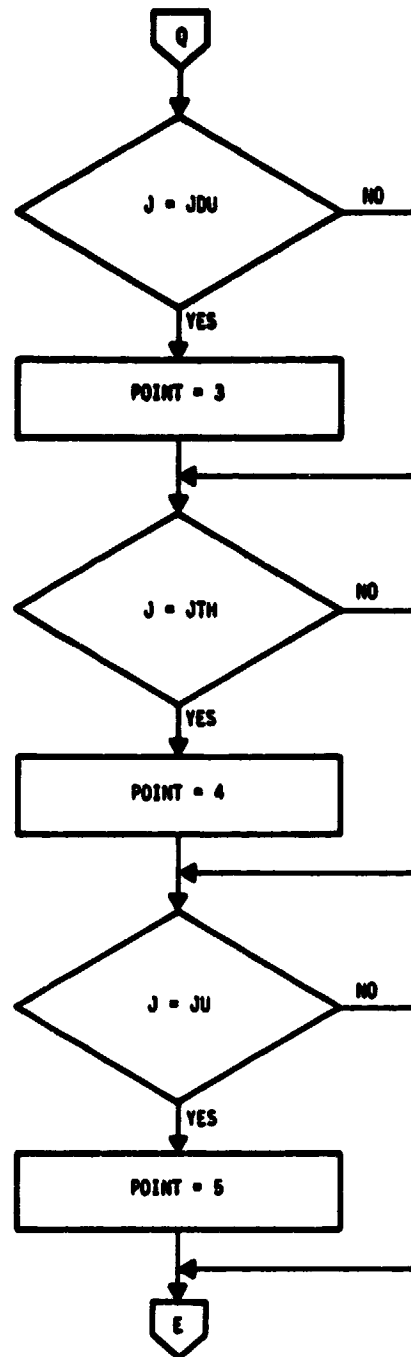
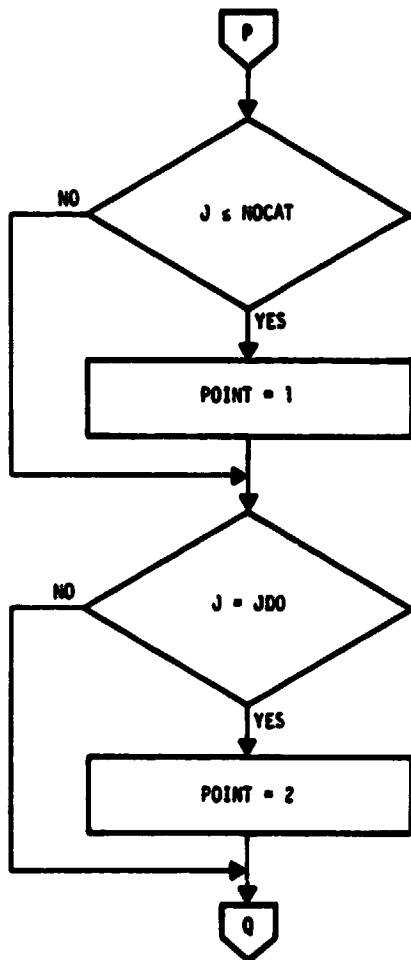
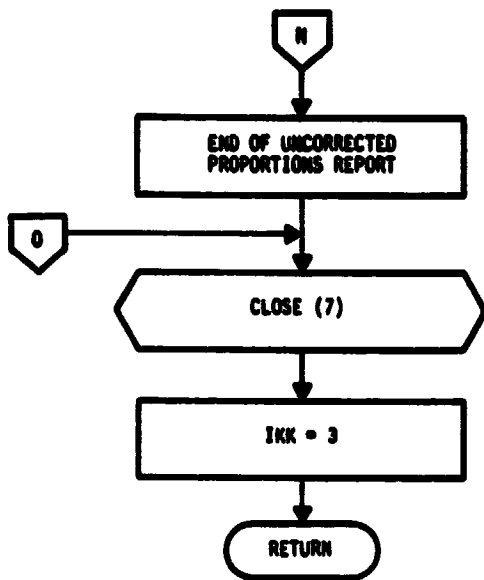
18. BIAS UNCORRECTED REPORT

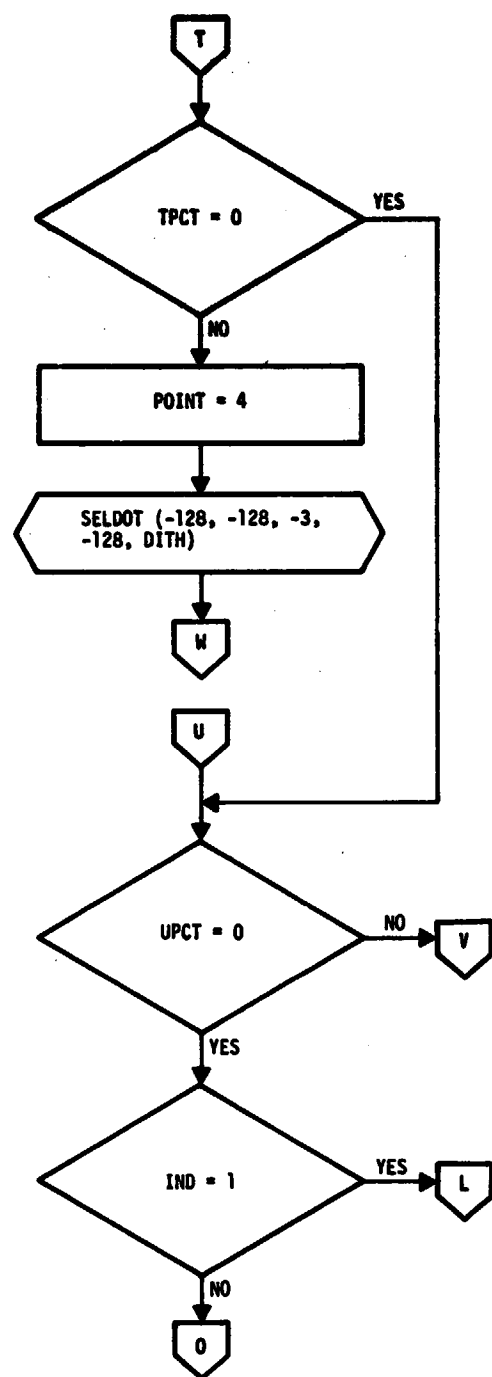
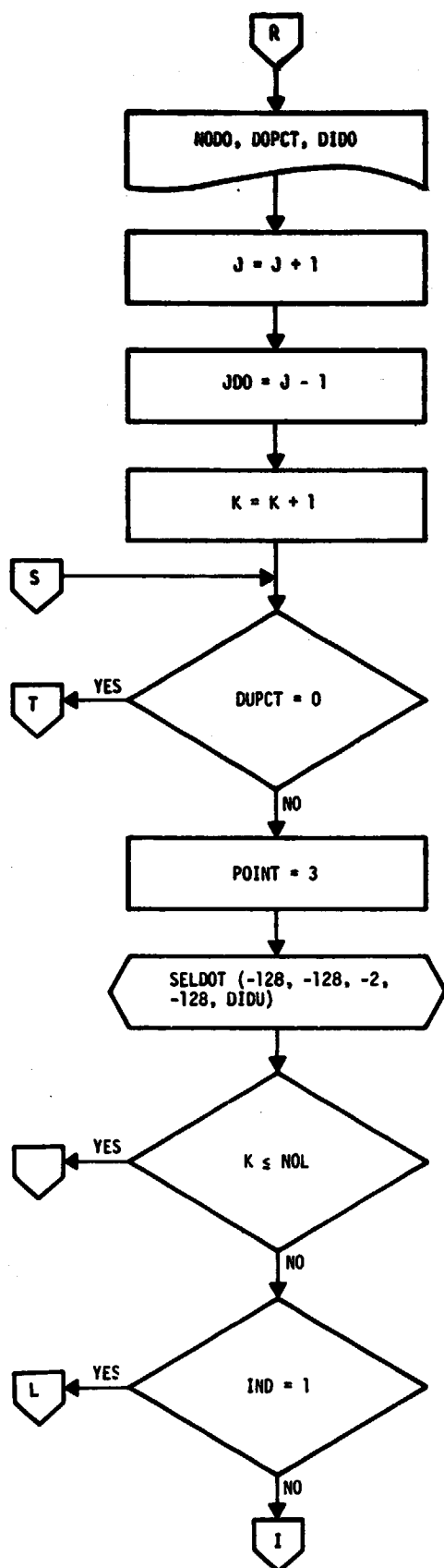


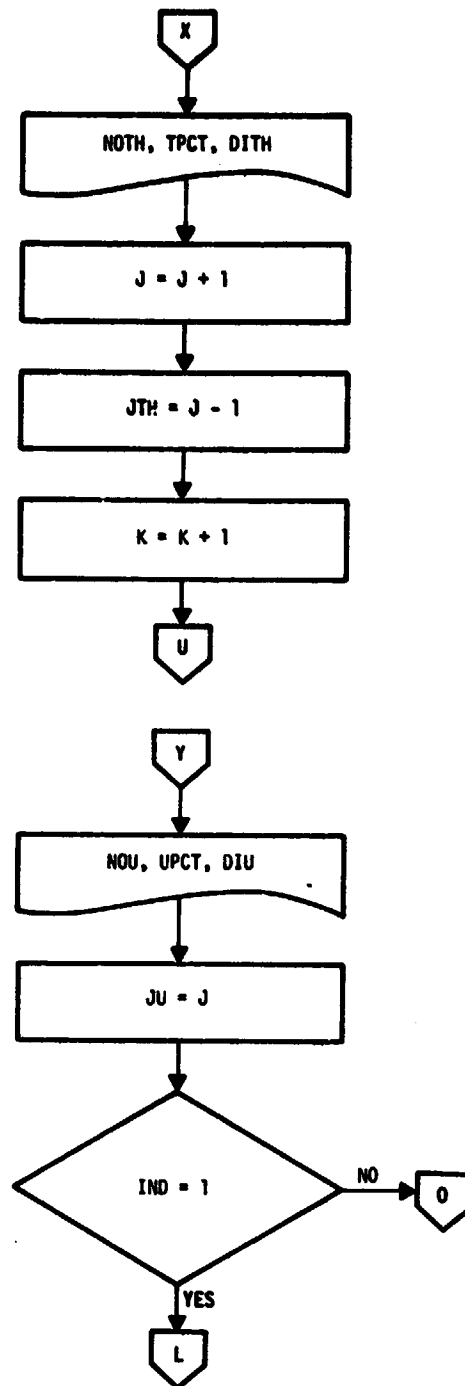
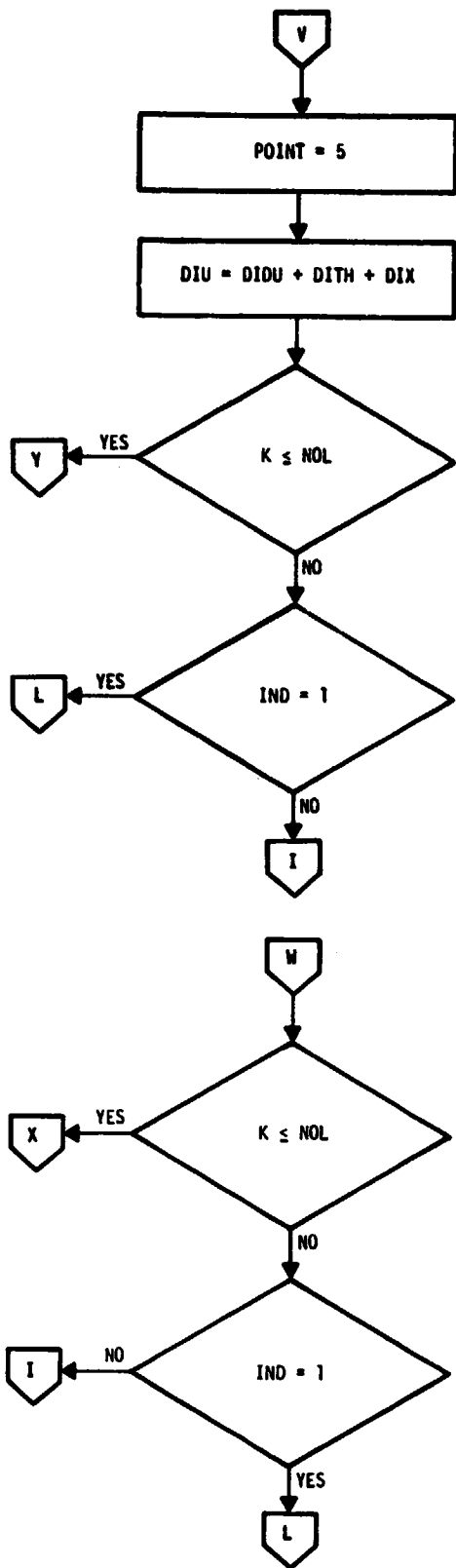
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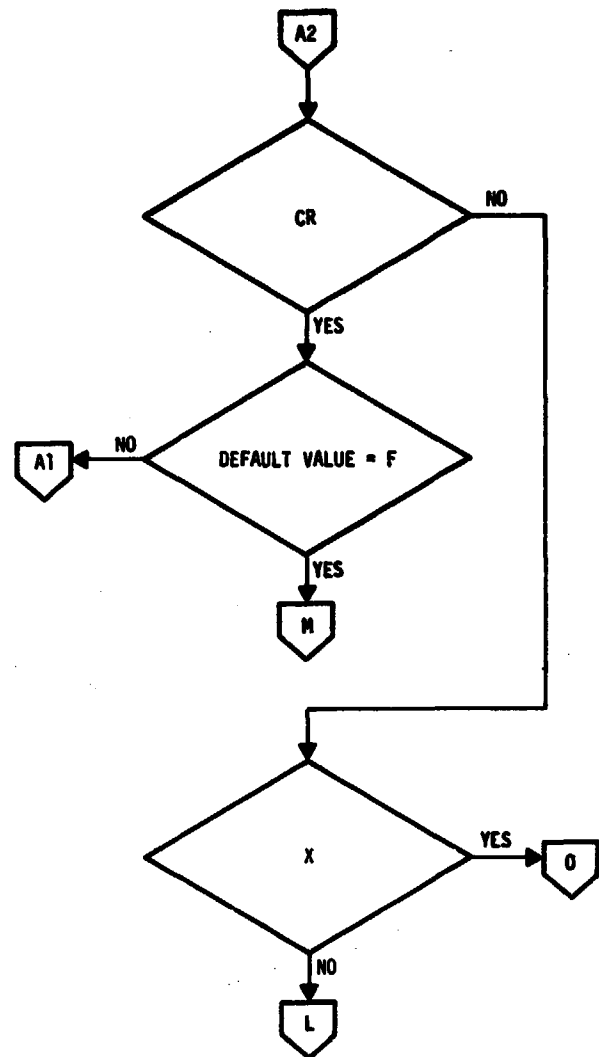
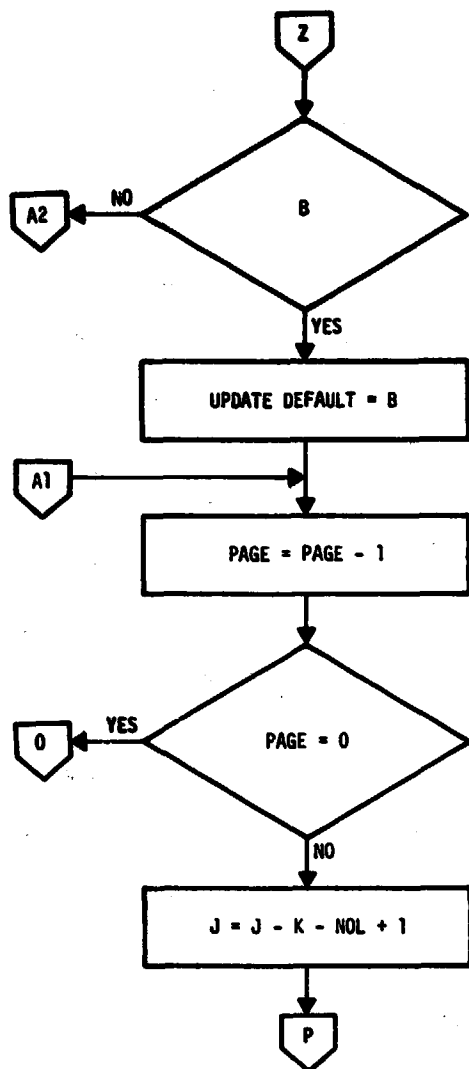








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19. CLUSTER REPORTS CLURPT

HF0RTRAN IV-PLUS V02-04
CLURPT.FTN /TP:BLOCKS/WP
0001 PROGRAM CLURPT

14108116 31-AUG-77

PAGE 1

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0002 IMPLICIT INTEGER (A-Z)

0003 BYTE TIM(8), INPU1(74), INPU2(74), D0PT, RDEF, H0LDD, NEXT(6)

0004 INCLUDE 'SY:[300,3]CAMSC7MON,INC'
0005 * INCLUDE 'SY:[300,3]CAMSPARAM,INC'
0006 * PARAMETER MAXCAT=60, MAXSUB=60, MAXCHN=4, NP1X=196, NLIN=117, MAXFLD=50
* 1, MAXV=11, NDOTS=259, DLSKIP=10, DSSKIP=10, MAXACH=6, MAXACC=4,
* 2, N0SPWD=6, N0DTWD=10
0007 * EQUIVALENCE (C1,ACDATE), (C2,ISEG), (C3,PFLAG), (C4,TX1), (C5,DISKID)
0008 * INTEGER C1(469), C2(256), C3(71), C4(348), C5(629)

0009 * C* INTEGER ACDATE, SUBCAT, SUBP0P, CATKNT, CATTH
0010 * BYTE CHNVEC, N0CHAN, N0SUB, D0TCAT, D0TCLU
0011 * COMMON/COM1/ACDATE(2, MAXACC), CHNVEC(MAXCHN, MAXACC), N0CHAN, N0SUB,
* 1, SUBCAT(MAXSUB), SUBP0P(MAXSUB), CATKNT(MAXCAT), CATTH(MAXCAT), N0D0,
* 2, N0D0, N0TH, D0TCAT(N0D0TS), D0TCLU(N0D0TS)

0012 * C* INTEGER ADATES, SUNAZ, ANALST, FLDDAY, D0TDAY, PDATE1, TDATE1
0013 * INTEGER PDATE2, TDATE2, PDATE3, TDATE3, CATNAM, DISKID, RANDOM, GRID
0014 * BYTE D0FL0G, N0ACO, S0ILGR, SUNEL, NSTART, NTYPE1, ALP, ALP0
0015 * BYTE P0TCT, P0TCT0, VAR, VAR0, DLABEL, TYPE
0016 * COMMON/COM2/ISEG, D0FL0G, N0ACO, ADATES(2, MAXACC), S0ILGR(MAXACC),
* 1, SUNEL(MAXACC), SUNAZ(MAXACC), IMDATE(2), ANALST(5), FLDDAY(2),
* 2, D0TDAY(2), NSTART, NTYPE1, PDATE1(2), TDATE1(2), PDATE2(2), TDATE2(2),
* 3, PDATE3(2), TDATE3(2), N0CAT, CATNAM(MAXCAT), ALP(MAXCAT), ALP0,
* 4, P0TCT(MAXCAT), P0TCT0, VAR(MAXCAT), VAR0

0017 * C* INTEGER EFLAG1, EFLAG2, EFLAG3, EFLAG4, EFLAG5, UFLAG1, UFLAG2, UFLAG3,
* 1, UFLAG4
0018 * INTEGER PFLAG, DSKMNT
0019 * COMMON/COM3/PFLAG, DSKMNT, EFLAG1, EFLAG2, EFLAG3, EFLAG4, EFLAG5, UFLAG1,
* 1, UFLAG2, UFLAG3, UFLAG4, NEWLAB(MAXSUB)

0020 * C* INTEGER TX1, TY1, TX2, TY2, ACDISP, G, B, DTWIND, D0TARY, GMIN, GMAX, FUL
0021 * INTEGER SPWIND, CLAWND, CLUWND
0022 * COMMON/COM4/TX1, TY1, TX2, TY2, IX1, IY1, IX2, IY2, ACDISP(2), I11(4), G(4),
* 1, B(4), DTWIND(5, N0D0T), SPWIND(5, N0SPWD), IMWIND(4), NUMD0T,
* 2, D0TARY(N0D0TS), GMIN, GMAX, FUL(2, 7), CLAWND(8), CLUWND(8)
0023 * COMMON/COM5/DISKID, RANDOM(N0D0TS), GRID(N0D0TS), DLABEL(N0D0TS),
* 1, TYPE(N0D0TS), RECL0C


```

0024      DATA DDEPT/'T'/,RDEF/'1'/,NEXY/'1','2','3','4','5','6'/
C
C
C
C
C
C
C
C
C
0025      OPEN (UNIT=7,NAME='(300,1)CLUSTATS.TMP',TYPE='OLD',
1 ACCESS='DIRECT',MAXREC=MAXCAT,RECORDSIZE=36)
C
C
C
0026      II=1
0027      CALL ELAPSE(II)
0028      10 CALL OUTPUT (27,12)
C
0029      CALL IDATE(M0,DAY,YR)
0030      CALL TIME (TIM)
C
C
C
0031      WRITE (6,100) M0,DAY,YR,TIM
0032      100 FORMAT (1H0,50X,'DATEI ',I2,2('/',I2),
1 /,56X,I2('/',I2),/51X,'TIMEI ',9A1,/,56X,I2('/',I2))
C
0033      IF (N2SUR .EQ. 0) GO TO 9000
C
0034      20 WRITE (6,110) RDEF
0035      110 FORMAT (1H0,20X,'C L U S T E R   R E P O R T S',
1 //,5X,' (1) BRIEF CLUSTER',
2 //,5X,' (2) CLUSTER MEAN/STANDARD DEVIATION',
3 //,5X,' (3) INTERCLUSTER DISTANCE',
4 //,5X,' (4) CLUSTER NEAREST NEIGHBOR',
5 //,5X,' (5) ALL OF THE ABOVE',
7 //,13 WHICH OF THE ABOVE OPTIONS DO YOU WISH 'A1,' >))
C
C
0036      CALL OUTPUT (7)
0037      READ (6,200) INPU1
0038      200 FORMAT (74A1)
0039      CALL FRONT (INPU1,74)
0040      IF (INPU1(1) .EQ. 'X') GO TO 9696
0041      IF (INPU1(1) .EQ. 'B') GO TO 9696
0042      IF (INPU1(1) .EQ. ' ') INPU1(1) = RDEF
C
0043      H0LDD = INPU1(1)
0044      IP = 0
0045      CALL INTEF (IP,INPU1,74,RN)
0046      IF (RN .LT. 1 .OR. RN .GT. 6) GO TO 20
0047      RDEF = H0LDD
  
```


0048 30 WRITE (6,300) D0PT
0049 300 FORMAT (1H0,' CHOOSE ONE OF THE FOLLOWING DISPLAY OPTIONS: ',
1 //,'S (G)OULD PRINTER, (L)INE PRINTER, (T)ERMINAL 'A1,' >')

0050 D02 = 0
0051 D03 = 0
0052 CALL ZUTPUT(7)
0053 READ (6,200) INPU2
0054 CALL FRONT (INPU2,74)
0055 IF (INPU2(1) .EQ. 'X') GO TO 9696
0056 IF (INPU2(1) .EQ. '3') GO TO 20
0057 IF (INPU2(1) .EQ. ' ') INPU2(1) = D0PT
0058 350 IF (INPU2(1) .EQ. 'L') GO TO 32
0059 IF (INPU2(1) .EQ. 'G') GO TO 34
0060 IF (INPU2(1) .NE. 'T') GO TO 30
0061 D01 = 6
0062 GO TO 36
0063 32 D01 = 8
0064 GO TO 36
0065 34 D01 = 3

0066 36 D0PT = INPU2(1)
0067 IF (INPU2(3) .EQ. 'L') D02 = 8
0068 IF (INPU2(5) .EQ. 'L') D03 = 8
0069 IF (INPU2(3) .EQ. '3') D02 = 3
0070 IF (INPU2(5) .EQ. 'G') D03 = 3
0071 IF (INPU2(3) .EQ. 'T') D02 = 6
0072 IF (INPU2(5) .EQ. 'T') D03 = 6

0073 40 REPF LG = 0
0074 IF (RDEF .EQ. '1') GO TO 1001
0075 IF (RDEF .EQ. '2') GO TO 1002
0076 IF (RDEF .EQ. '3') GO TO 1003
0077 IF (RDEF .EQ. '4') GO TO 1004
0078 REPF LG = 1

0079 1001 CALL BRFC LU (D01,D02,D03)
0080 IF (REPF LG .EQ. 0) GO TO 5000
0081 1002 CALL MENSTD (D01,D02,D03)
0082 IF (REPF LG .EQ. 0) GO TO 5000
0083 1003 CALL INCLDS (D01,D02,D03)
0084 IF (REPF LG .EQ. 0) GO TO 5000
0085 1004 CALL CLUSNN (D01,D02,D03)

0086 5000 CALL INTEF (IP,INPU1,74,RN)
0087 IF (RN .LT. 1 .OR. RN .GT. 5) GO TO 9696
0088 RDEF = NEXT(RN)
0089 GO TO 40

0090 9696 CALL ZUTPUT (27,12)

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```

0091      II=2
0092      CALL ELAPSE(II)
0093      WRITE (6,900)
0094      900  FORMAT (//,'S (R)ESTART OR EXIT >')
          C
0095      CALL OUTPUT (7)
0096      READ (6,200) INPU1
0097      CALL FRONT (INPU1,74)
0098      IF (INPU1(1) .EQ. 'R') GO TO 30
0099      IF (INPU1(1) .NE. 'X') GO TO 9696
0100      GO TO 8888

          C
          C
          C
          C
          C
          C
0101      9001  WRITE (6,9100) ISEC
0102      9100  FORMAT (1H0,' NO CLUSTER DATA AVAILABE FOR SEGMENT ',I6)

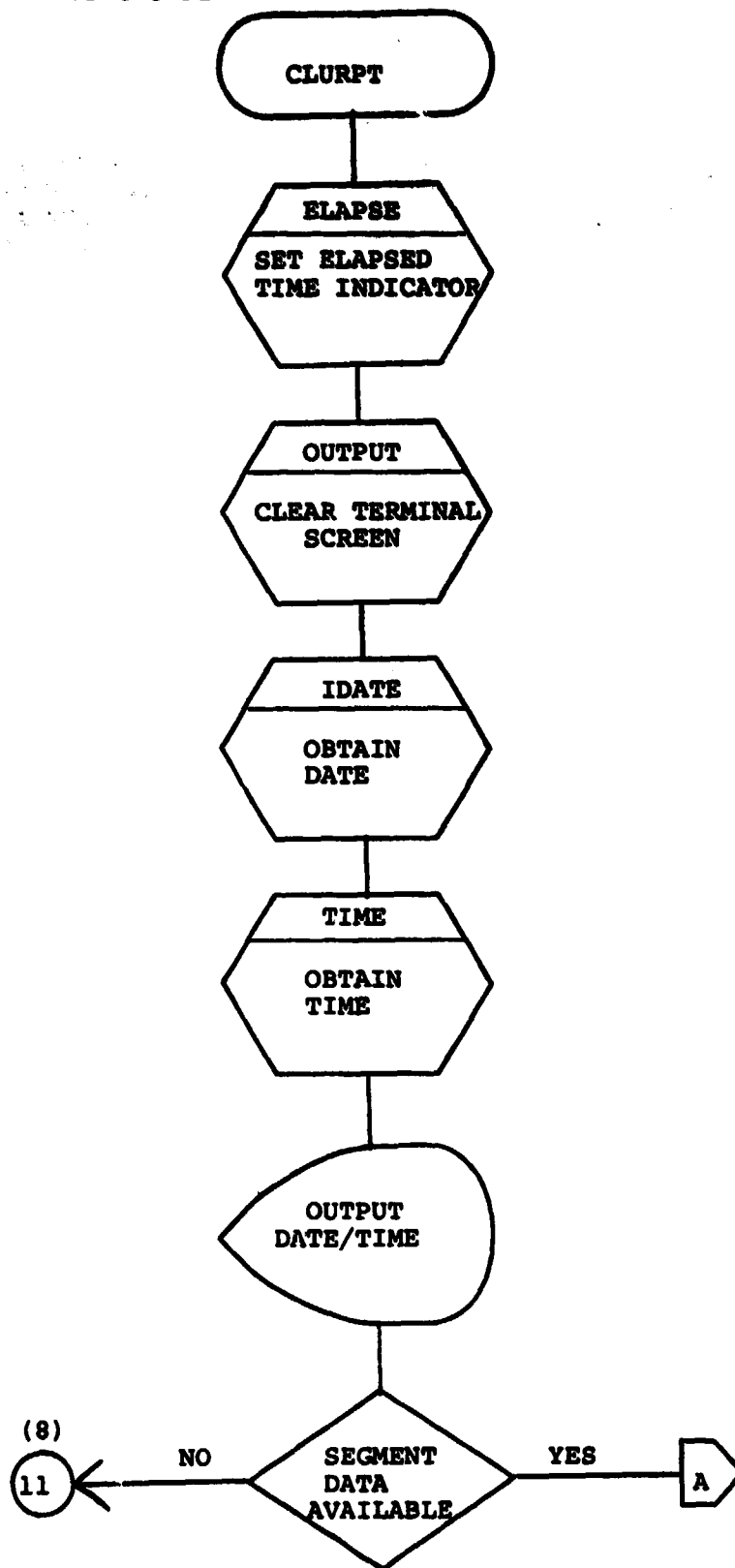
          C
          C
          C
          C
          C
          C
0103      8888  CLOSE(UNIT=7,DISPOSE='SAVE')

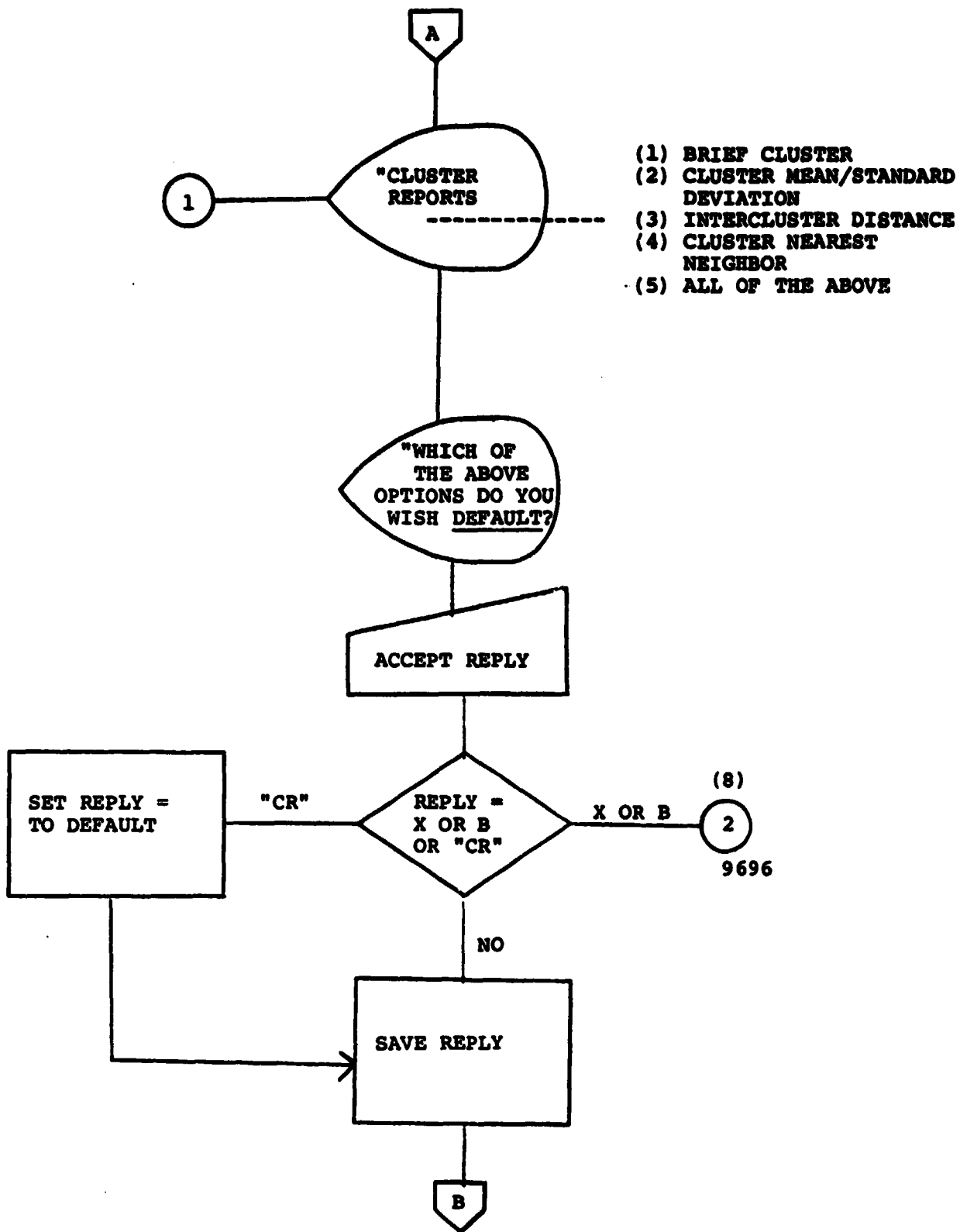
          C
          C
          C
          C
          C
          C
0104      INCLUDE '[300,3]CAMSAVE.INC'
0105      * OPEN(UNIT=1,NAME='[300,1]GLOBAL.TMP',FORM='UNFORMATTED',
          * 1  TYPE='UNKNOWN',ERR=9999)
0106      * WRITE(1)C1
0107      * WRITE(1)C2
0108      * WRITE(1)C3
0109      * WRITE(1)C4
0110      * WRITE(1)C5
0111      * CLOSE(UNIT=1)
0112      * GO TO 9991
0113      * 9999  TYPE 9990
0114      * 9990  FORMAT(1X,'OPEN FAILURE ON [300,1]GLOBAL.TMP--NO RESTART')
0115      * 9991  CONTINUE
0116      * CALL SETEF(50)

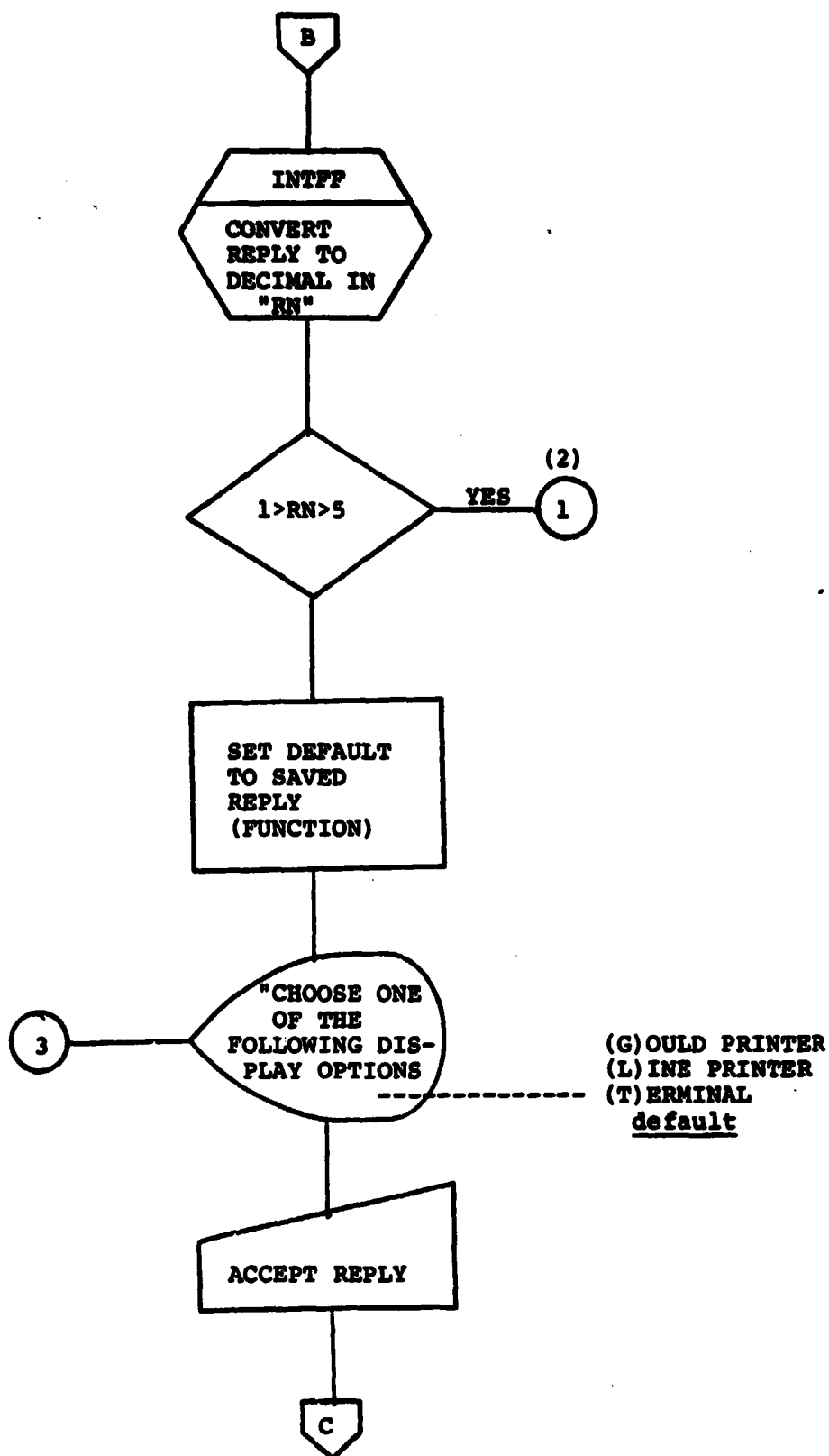
          C
          C
          C
          C
          C
          C
0117      * END

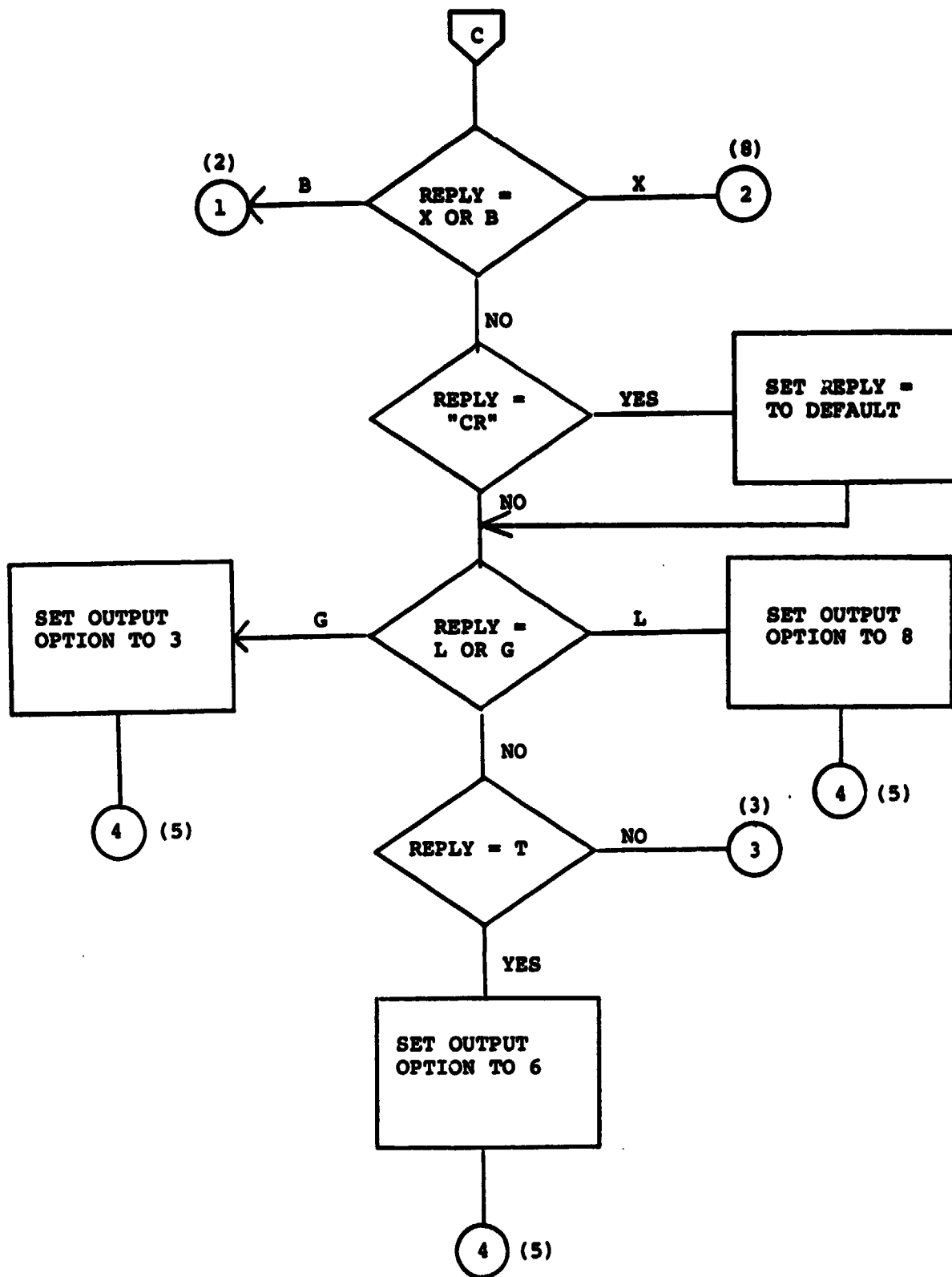
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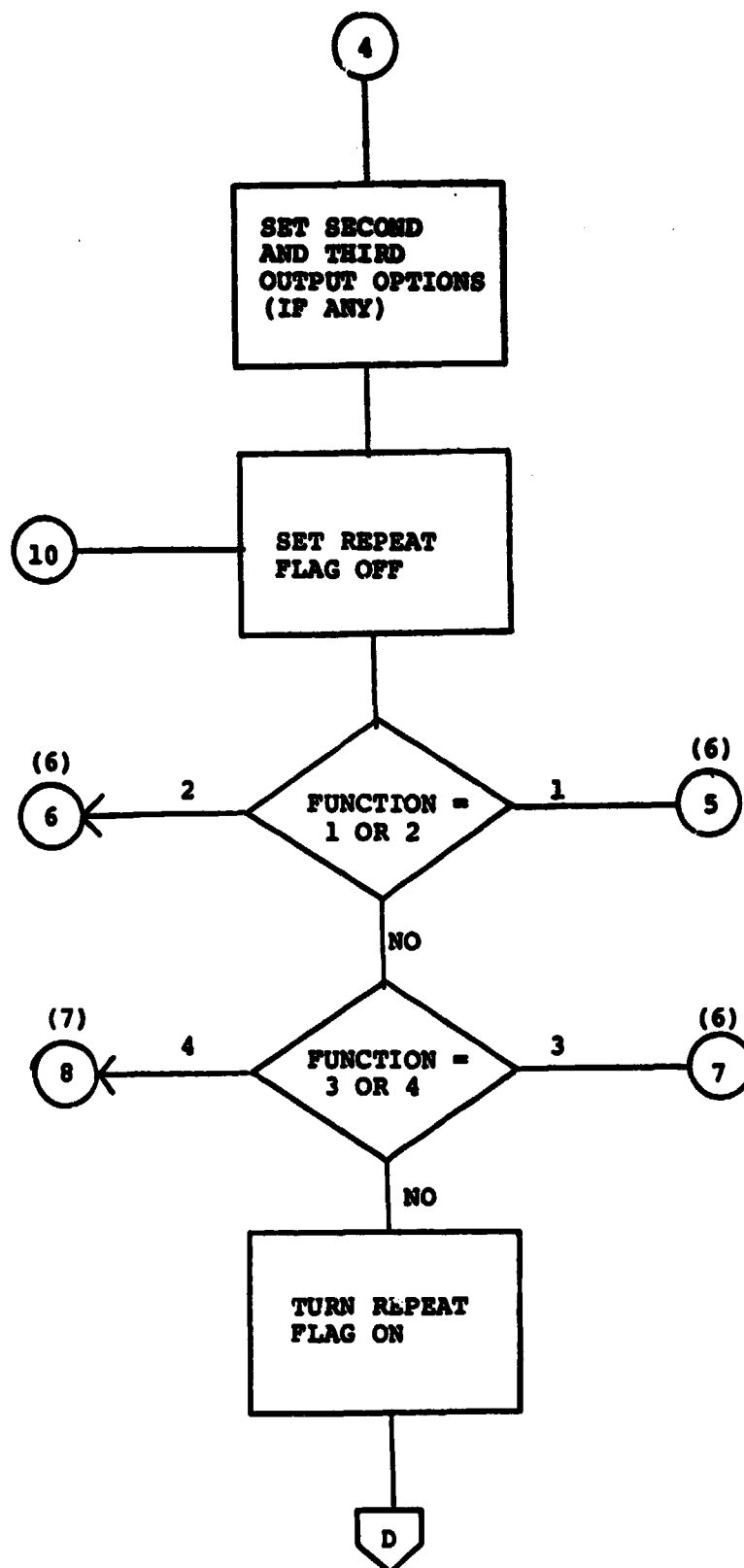

19. CLUSTER REPORTS CLURPT

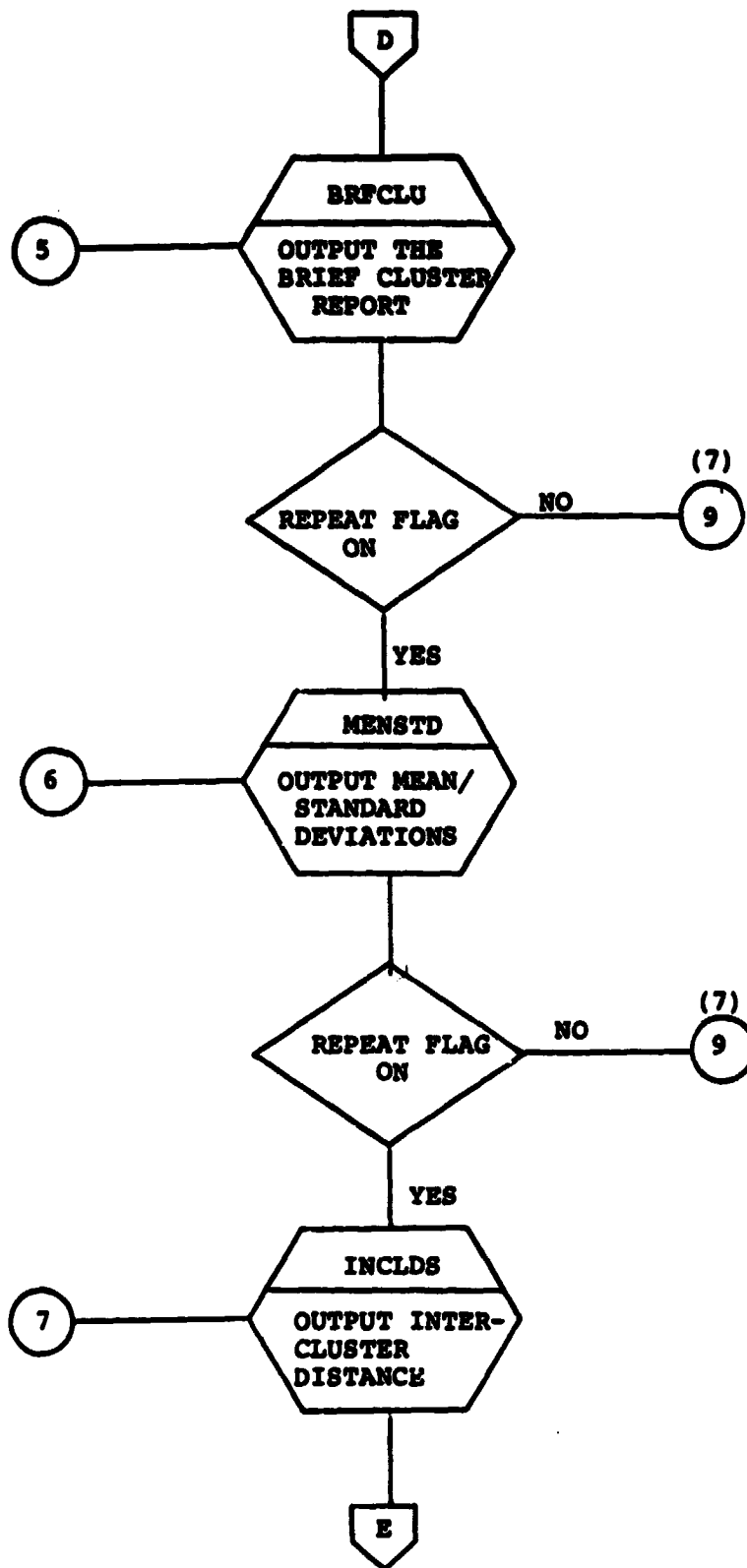


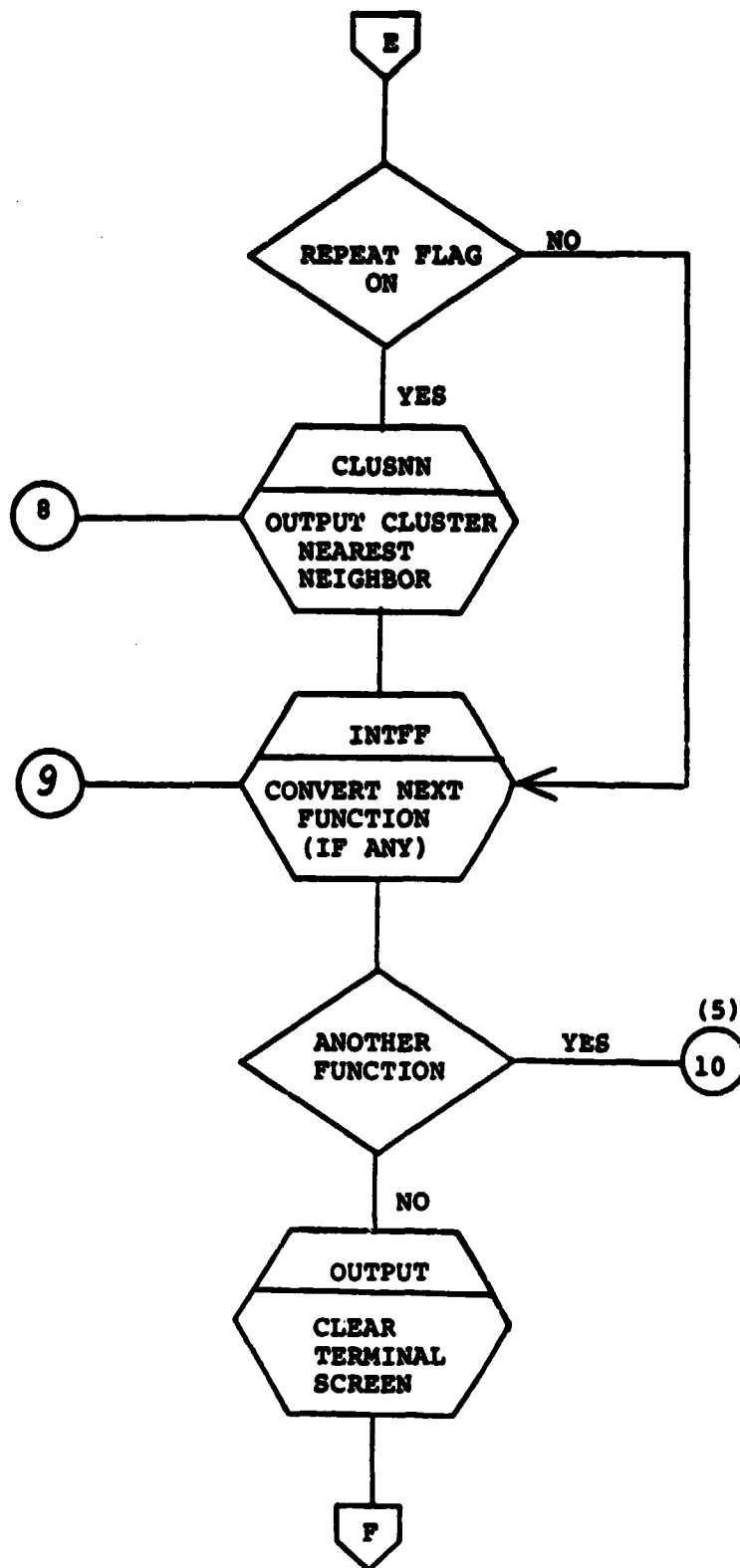




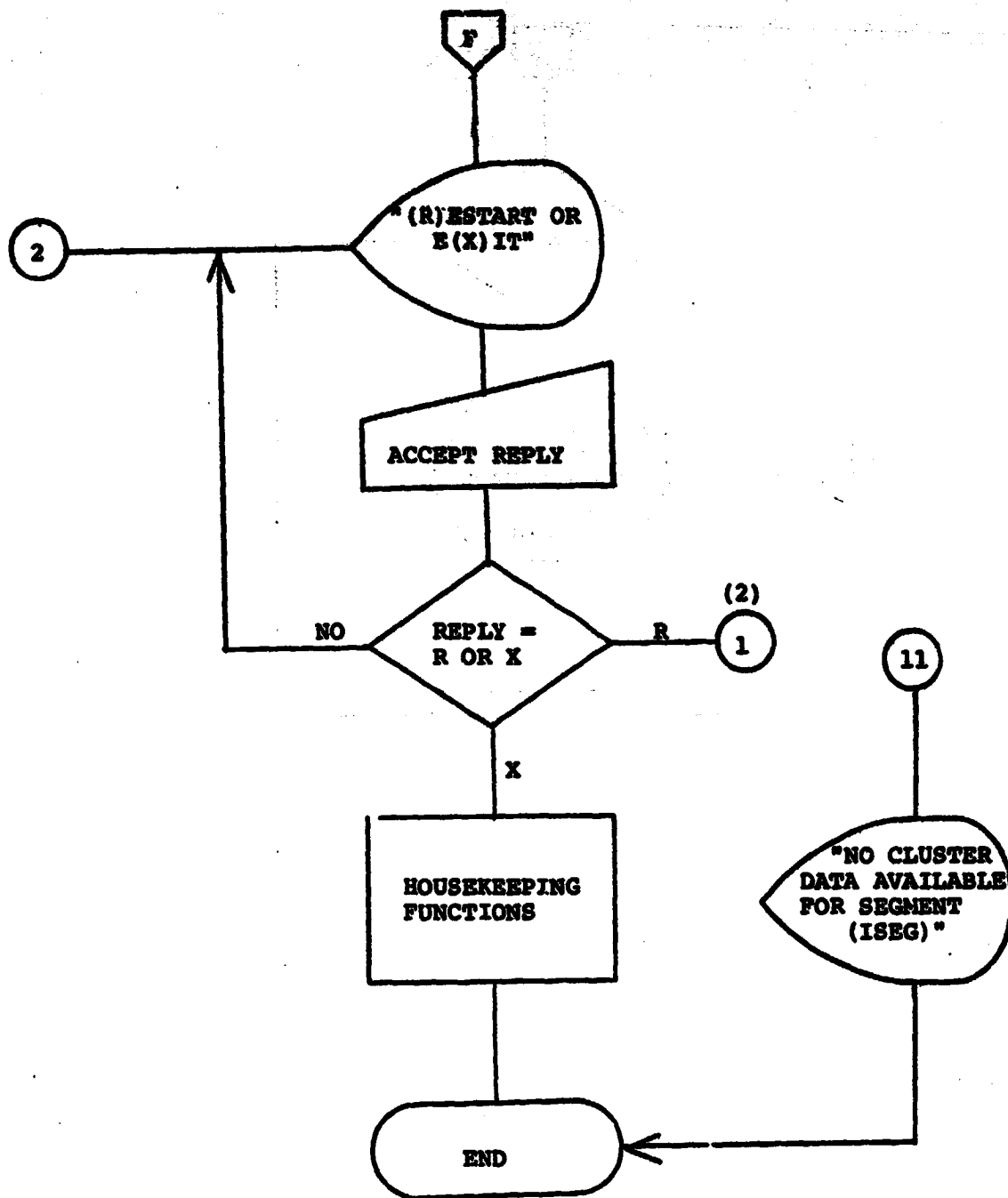








3.79



19.1 SUBROUTINE MENSTD

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MENSTD.FTN

/TRIGLOCKS/NR

0001

SUBROUTINE MENSTD (D01,D02,D03)

0002

IMPLICIT INTEGER (C-Y)

0003

IMPLICIT INTEGER (A)

0004

BYTE TIN(8),BUFFER(144),INPUT(74)

0005

INCLUDE 'SY:[300,3]CAMSCAMON.INC'

0006 *

INCLUDE 'SY:[300,3]CAMSPARAM.INC'

0007 *

PARAMETER MAXCAT=67,MAXSUB=67,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=50

0008 *

1,MAXV=11,NDOTS=209,LLSKIP=10,USSKIP=10,MAXACD=6,MAXACC=4,

0009 *

2NOSPD=6,NDDTND=10

0010 *

EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,TX1),(C5,DISKID)

0011 *

INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)

0012 *

C*

0013 *

INTEGER ACDATE,SUBCAT,SUBP,P,CATKNT,CATTH

0014 *

BYTE CHNVEC,NCHAN,NOSUB,DTCAT,DTCCLU

0015 *

COMMON/C0M1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NCHAN,NOSUB,

0016 *

1SUBCAT(MAXSUB),SUBP0P(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NDDN,

0017 *

2NDDU,NTH,DTCAT(NDOTS),DTCCLU(NDOTS)

0018 *

C*

0019 *

INTEGER ADATES,SUNAZ,ANALST,FLDDAY,DOTDAY,PDATE1,TDATE1

0020 *

INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDM,GRID

0021 *

BYTE DELFLG,NQACO,S0ILGR,S0NEL,ASTART,NTYPE1,ALP,ALP0

0022 *

BYTE PCTCT,PCTCT2,VAR,VAR0,DLABEL,TYPE

0023 *

COMMON/C0M2/ISEG,DEFLG,NQACO,ADATES(2,MAXACD),S0ILGR(MAXACD),

0024 *

1S0NEL(MAXACD),SUNAZ(MAXACD),INDATE(2),ANALST(5),FLDDAY(2),

0025 *

2DOTDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),

0026 *

3PDATE3(2),TDATE3(2),N2CAT,CATNAM(MAXCAT),ALP(MAXCAT),ALP0,

0027 *

4 PCTCT(MAXCAT),PCTCT2,VAR(MAXCAT),VAR0

0028 *

C*

0029 *

INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,

0030 *

1UFLAG4

0031 *

INTEGER PFLAG,DSKMNT

0032 *

COMMON/C0M3/PFLAG,DSKMNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1

0033 *

1,UFLAG2,UFLAG3,UFLAG4,NEWLAB(MAXSUB)

0034 *

C*

0035 *

INTEGER TX1,TY1,TX2,TY2,ACDISP,G,B,DTWIND,D0TARY,GMIN,GMAX,FUL

0036 *

INTEGER SPVIND,CLAWNT,CLUWND

0037 *

COMMON/C0M4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I11(4),G(4),

0038 *

13(4),DTWIND(2,NDDTND),SPVIND(5,NOSPD),IMWIND(4),NUMDOT,

0039 *

2D0TARY(NDOTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)

0040 *

COMMON/C0M5/DISKID,RANDM(NDOTS),GRID(NDOTS),DLABEL(NDOTS),

0041 *

1TYPE(NDOTS),RECLPC


```

0025      DIMENSION D123(3),ACON(4)

0026      EQUIVALENCE (BUFFER(1),BM11),(BUFFER(5),BS11)
0027      EQUIVALENCE (BUFFER(9),BM12),(BUFFER(13),BS12)
0028      EQUIVALENCE (BUFFER(17),BM13),(BUFFER(21),BS13)
0029      EQUIVALENCE (BUFFER(25),BM14),(BUFFER(29),BS14)

0030      EQUIVALENCE (BUFFER(37),BM21),(BUFFER(41),BS21)
0031      EQUIVALENCE (BUFFER(45),BM22),(BUFFER(49),BS22)
0032      EQUIVALENCE (BUFFER(53),BM23),(BUFFER(57),BS23)
0033      EQUIVALENCE (BUFFER(61),BM24),(BUFFER(65),BS24)

0034      EQUIVALENCE (BUFFER(73),BM31),(BUFFER(77),BS31)
0035      EQUIVALENCE (BUFFER(81),BM32),(BUFFER(85),BS32)
0036      EQUIVALENCE (BUFFER(89),BM33),(BUFFER(93),BS33)
0037      EQUIVALENCE (BUFFER(97),BM34),(BUFFER(101),BS34)

0038      EQUIVALENCE (BUFFER(109),BM41),(BUFFER(113),BS41)
0039      EQUIVALENCE (BUFFER(117),BM42),(BUFFER(121),BS42)
0040      EQUIVALENCE (BUFFER(125),BM43),(BUFFER(129),BS43)
0041      EQUIVALENCE (BUFFER(133),BM44),(BUFFER(137),BS44)

0042      DATA ACON/1,2,3,4/

0043      D123(1) = D01
0044      D123(2) = D02
0045      D123(3) = D03

0046      DO 110 I=1,3
0047      IF (D123(I) .EQ. 0) WRITE (0,100)
0048      IF (D123(I) .EQ. 3) WRITE (3,100)
0049      100  FORMAT (1H1)
0050      110  CONTINUE

0051      IF (D01 .EQ. 6 .OR. D02 .EQ. 6 .OR. D03 .EQ. 6) CALL OUTPUT (27,12)

0052      CALL IDATE (MO,DAY,YR)
0053      CALL TIME (TIM)

0054      DO 200 I =1,3
0055      IF (D123(I) .EQ. 0) GO TO 200
0056      WRITE (D123(I),1100) MO,DAY,YR,TIM
0057      1100  FORMAT (1H0,50X,'DATE: ',12,2(1,'/',12),
1          /56X,12(1,'/'),51X,'TIME: ',8A1,/,56X,12(1,'/'))
0058      200  CONTINUE

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MENSTD.FTN /TRIGLOCKS/WR
0059 DO 400 I=1,3
0060 IF (D123(I).EQ. 0) GO TO 400
0061 WRITE (D123(I),1200)
0062 1200 FORMAT (1H0,16X,'CLUSTER MEAN/STANDARD DEVIATION REPORT')
0063 400 CONTINUE

0064 DO 600 I=1,3
0065 IF (D123(I).EQ. 0) GO TO 600
0066 WRITE (D123(I),1500) ISEG
0067 WRITE (D123(I),1510) ((ACDATE(J,K),J=1,2),K=1,MAXACC)
0068 1500 FORMAT (1H0,' SEGMENT ID ',16)
0069 1510 FORMAT (1H0,' ACQUISITION DATE(S) ',(4(12,'/13,2X)))
0070 600 CONTINUE

0071 DO 700 I=1,3
0072 IF (D123(I).EQ. 0) GO TO 700
0073 IF (D123(I).EQ. 0) GO TO 1600
0074 WRITE (D123(I),1710) (ACON(IJ),IJ=1,MAXACC)
0075 1710 FORMAT (1H0,1X,(4(15X,'ACC ',11)))
0076 GO TO 700
0077 1500 WRITE (D123(I),1610) (ACON(IJ),IJ=1,MAXACC)
0078 1610 FORMAT (1H0,2X,(4(11X,'ACC ',11)))
0079 700 CONTINUE

0080 DO 900 I=1,3
0081 IF (D123(I).EQ. 0) GO TO 900
0082 IF (D123(I).EQ. 0) GO TO 850
0083 IF (MAXACC.EQ. 1) WRITE (D123(I),1801)
0084 IF (MAXACC.EQ. 2) WRITE (D123(I),1902)
0085 IF (MAXACC.EQ. 3) WRITE (D123(I),1803)
0086 IF (MAXACC.EQ. 4) WRITE (D123(I),1804)
0087 1801 FORMAT (' CLUSTER',6X,'MEAN',3X,'ST DEV')
0088 1802 FORMAT (' CLUSTER',2(6X,'MEAN',3X,'ST DEV'))
0089 1903 FORMAT (' CLUSTER',3(6X,'MEAN',3X,'ST DEV'))
0090 1804 FORMAT (' CLUSTER',4(6X,'MEAN',3X,'ST DEV'))
0091 GO TO 900
0092 850 IF (MAXACC.EQ. 1) WRITE (D123(I),1901)
0093 IF (MAXACC.EQ. 2) WRITE (D123(I),1902)
0094 IF (MAXACC.EQ. 3) WRITE (D123(I),1903)
0095 IF (MAXACC.EQ. 4) WRITE (D123(I),1904)
0096 1901 FORMAT (' CLUSTER MEAN ST DEV')
0097 1902 FORMAT (' CLUSTER',2(3X,'MEAN ST DEV'))
0098 1903 FORMAT (' CLUSTER',3(3X,'MEAN ST DEV'))
0099 1904 FORMAT (' CLUSTER',4(3X,'MEAN ST DEV'))
0100 900 CONTINUE

0101 COUNTR = 3

0102 DO 2000 I=1,NUSUB
0103 READ (7,1) BUFR
0104 IF (D01.NE. 6 .AND. D02.NE. 6 .AND. D03.NE. 6) GO TO 3500


```

MENSTD.FTN /TR:BLOCKS/HR
0105 IF (COUNT,GT, 3) GO TO 3000
0106 COUNT = COUNT + 1
0107 GO TO 3000
0108 3000 WRITE (6,3050)
0109 3050 FORMAT (// 'S TO CONTINUE ENTER A "CR" >')
0110 CALL OUTPUT (7)
0111 READ (6,3100) INPUT
0112 3100 FORMAT (74A1)
0113 CALL FRONT (INPUT,74)
0114 IF (INPUT(1),EQ, 'X') GO TO 9999
0115 IF (INPUT(1),NE, ' ') GO TO 3000
0116 COUNT = 0
0117 CALL OUTPUT (27,12)

C
0118 3500 DO 6000 JM1,3
0119 IF (D123(J),EQ, 0) GO TO 6000
0120 IF (D123(J),EQ, 6) GO TO 5000
0121 IF (MAXACC,EQ, 1) GO TO 4010
0122 IF (MAXACC,EQ, 2) GO TO 4020
0123 IF (MAXACC,EQ, 3) GO TO 4030
0124 WRITE (D123(J),4100) 1,BM11,BS11,BM21,BS21,BM31,BS31,BM41,BS41
0125 WRITE (D123(J),4110) BM12,BS12,BM22,BS22,BM32,BS32,BM42,BS42
0126 WRITE (D123(J),4110) BM13,BS13,BM23,BS23,BM33,BS33,BM43,BS43
0127 WRITE (D123(J),4110) BM14,BS14,BM24,BS24,BM34,BS34,BM44,BS44
0128 4100 FORMAT (1H0,1X,13,2X,(4(5X,F6,2,3X,F6,2)))
0129 4110 FORMAT (7X,(4(5X,F6,2,3X,F6,2)))
0130 GO TO 6000

C
0131 4010 WRITE (D123(J),4100) 1,BM11,BS11
0132 WRITE (D123(J),4110) BM12,BS12
0133 WRITE (D123(J),4110) BM13,BS13
0134 WRITE (D123(J),4110) BM14,BS14
0135 GO TO 6000

C
0136 4020 WRITE (D123(J),4100) 1,BM11,BS11,BM21,BS21
0137 WRITE (D123(J),4110) BM12,BS12,BM22,BS22
0138 WRITE (D123(J),4110) BM13,BS13,BM23,BS23
0139 WRITE (D123(J),4110) BM14,BS14,BM24,BS24
0140 GO TO 6000

C
0141 4030 WRITE (D123(J),4100) 1,BM11,BS11,BM21,BS21,BM31,BS31
0142 WRITE (D123(J),4110) BM12,BS12,BM22,BS22,BM32,BS32
0143 WRITE (D123(J),4110) BM13,BS13,BM23,BS23,BM33,BS33
0144 WRITE (D123(J),4110) BM14,BS14,BM24,BS24,BM34,BS34
0145 GO TO 6000

C
C
0146 5000 IF (MAXACC,EQ, 1) GO TO 5010
0147 IF (MAXACC,EQ, 2) GO TO 5020
0148 IF (MAXACC,EQ, 3) GO TO 5030
0149 WRITE (D123(J),5100) 1,BM11,BS11,BM21,BS21,BM31,BS31,BM41,BS41
0150 WRITE (D123(J),5110) BM12,BS12,BM22,BS22,BM32,BS32,BM42,BS42
0151 WRITE (D123(J),5110) BM13,BS13,BM23,BS23,BM33,BS33,BM43,BS43
0152 WRITE (D123(J),5110) BM14,BS14,BM24,BS24,BM34,BS34,BM44,BS44
0153 5100 FORMAT (/,2X,13,2X,(4(2X,F6,2,1X,F6,2)))
0154 5110 FORMAT (7X,(4(2X,F6,2,1X,F6,2)))

```


UNTESTED, SINCE /TS:0406K52MR

0139 8000 8000 8000

0136 5010 WRITE (D123(J),5100) 1,8M11,8S11
 0137 WRITE (D123(J),5110) 8M12,8S12
 0138 WRITE (D123(J),5110) 8M13,8S13
 0139 WRITE (D123(J),5110) 8M14,8S14
 0140 GO TO 6000

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0141 5020 WRITE (D123(J),5100) 1,8M11,8S11,8M21,8S21
 0142 WRITE (D123(J),5110) 8M12,8S12,8M22,8S22
 0143 WRITE (D123(J),5110) 8M13,8S13,8M23,8S23
 0144 WRITE (D123(J),5110) 8M14,8S14,8M24,8S24
 0145 GO TO 6000

0146 5030 WRITE (D123(J),5100) 1,8M11,8S11,8M21,8S21,8M31,8S31
 0147 WRITE (D123(J),5110) 8M12,8S12,8M22,8S22,8M32,8S32
 0148 WRITE (D123(J),5110) 8M13,8S13,8M23,8S23,8M33,8S33
 0149 WRITE (D123(J),5110) 8M14,8S14,8M24,8S24,8M34,8S34
 0150 8000 CONTINUE

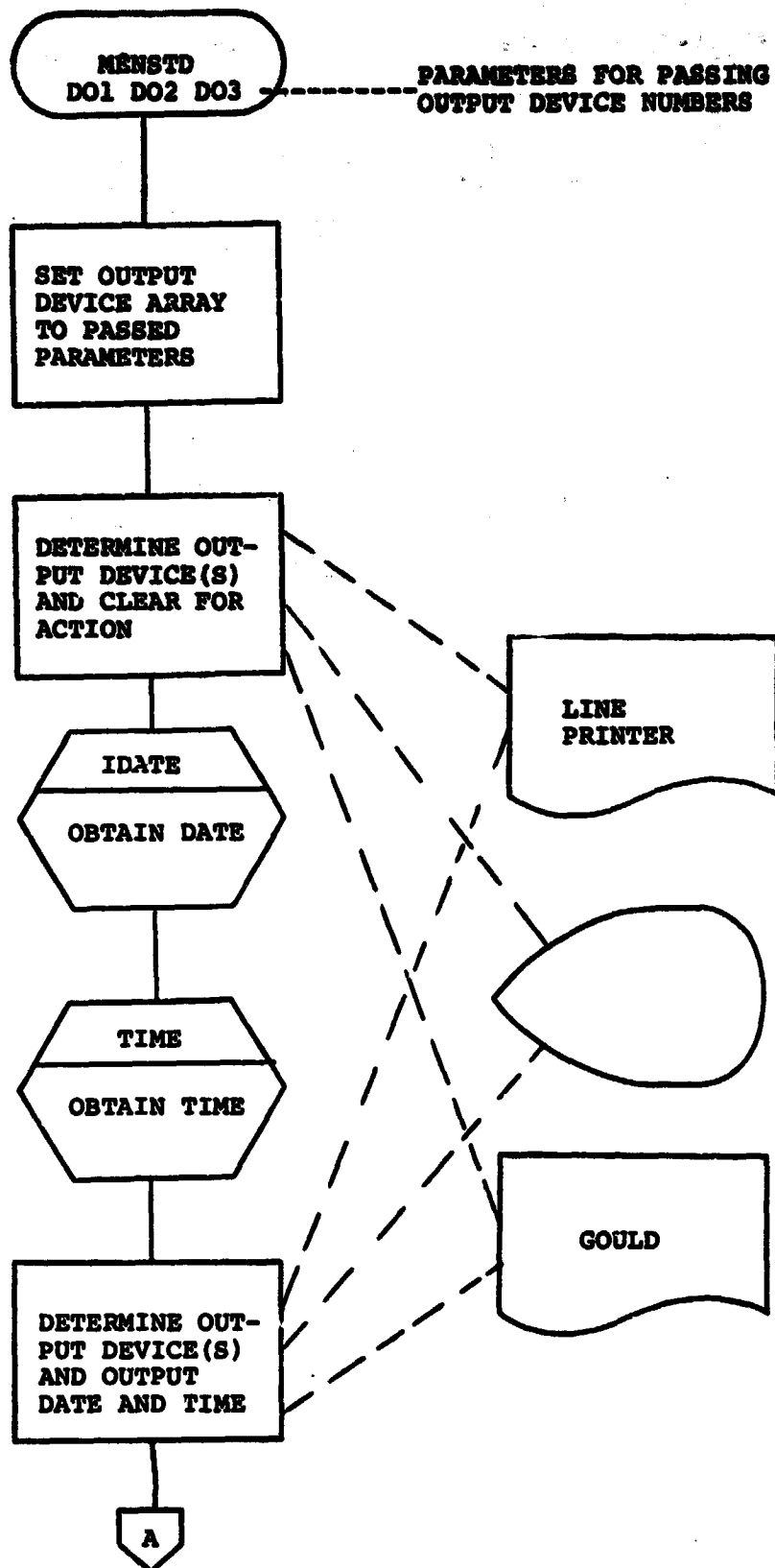
0171 7000 CONTINUE

0172 DO 9000 I = 1,3
 0173 IF (D123(I) .EQ. 0) GO TO 9000
 0174 IF (D123(I) .EQ. 6) GO TO 9000
 0175 WRITE (D123(I),8000)
 0176 8000 FORMAT (1H0, ' ')
 0177 9000 CONTINUE

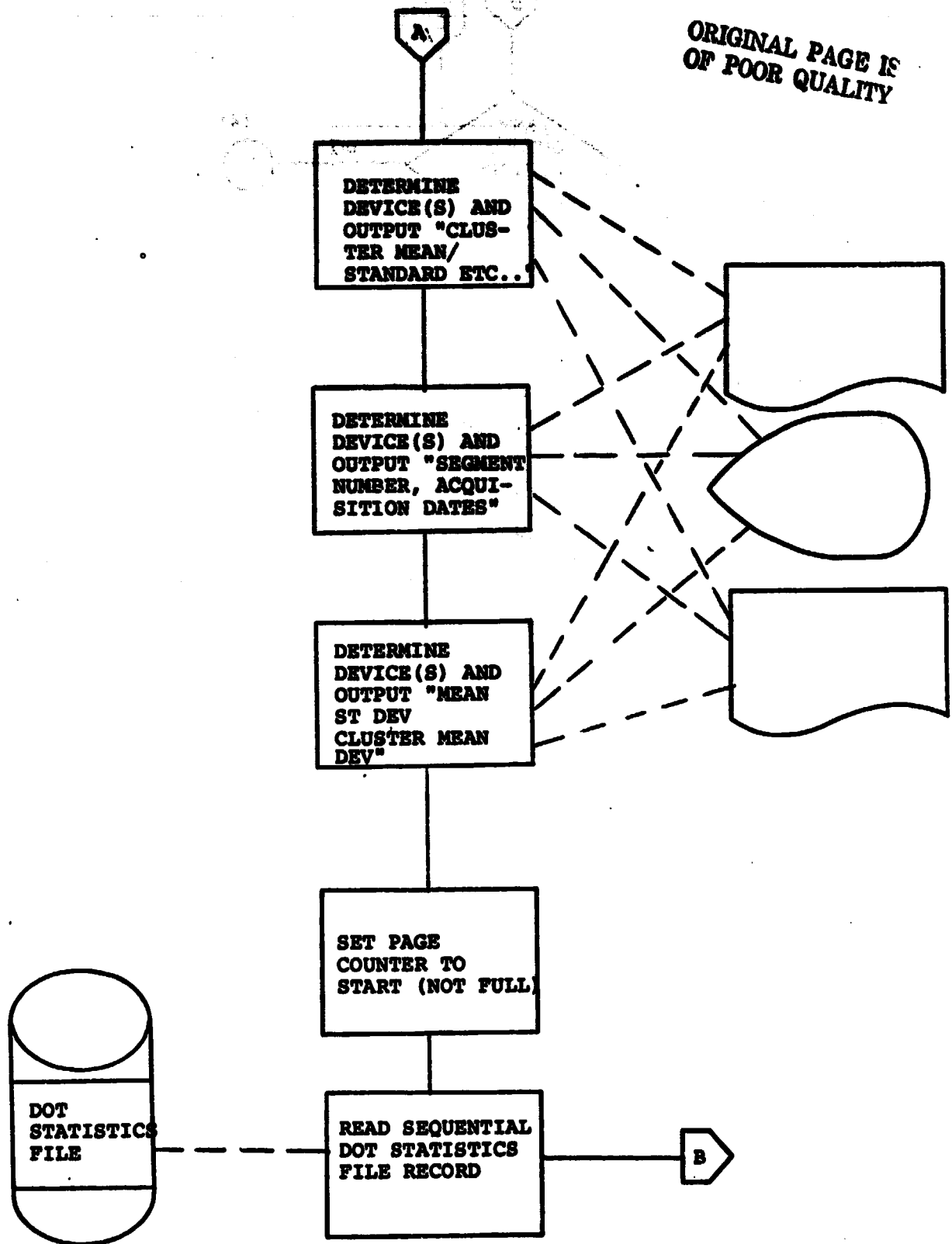
0178 IF (D01 .NE. 6 .AND. D02 .NE. 6 .AND. D03 .NE. 6) RETURN
 0179 9100 WRITE (6,9200)
 0180 9200 FORMAT (//, 'ENTER "CR" TO PROCEED > ')
 0181 CALL OUTPUT (7)
 0182 READ (6,3100) INPUT
 0183 CALL FRONT (INPUT,74)
 0184 IF (INPUT(1) .NE. ' ') GO TO 9100

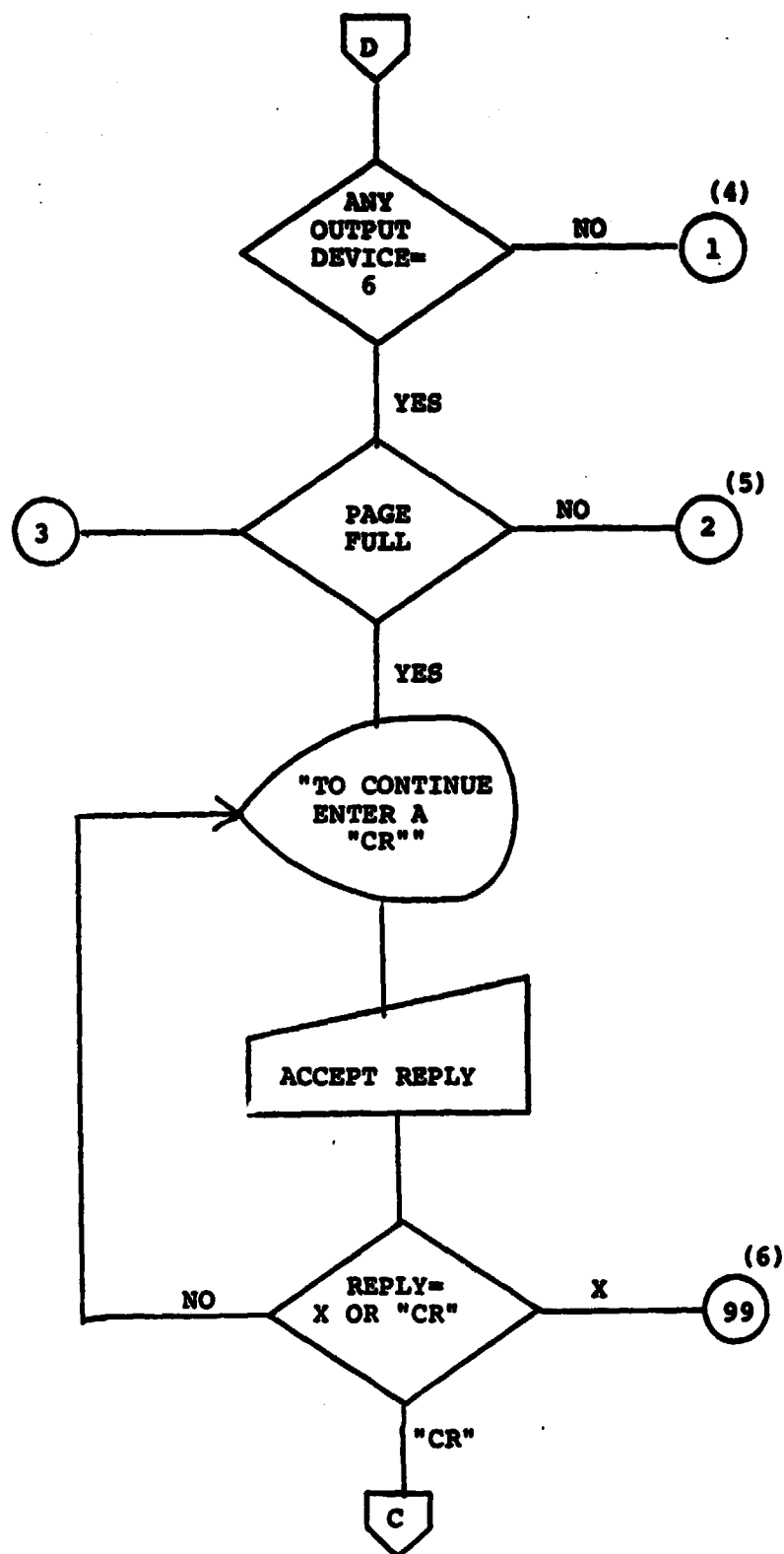
0185 9090 RETURN
 0186 END

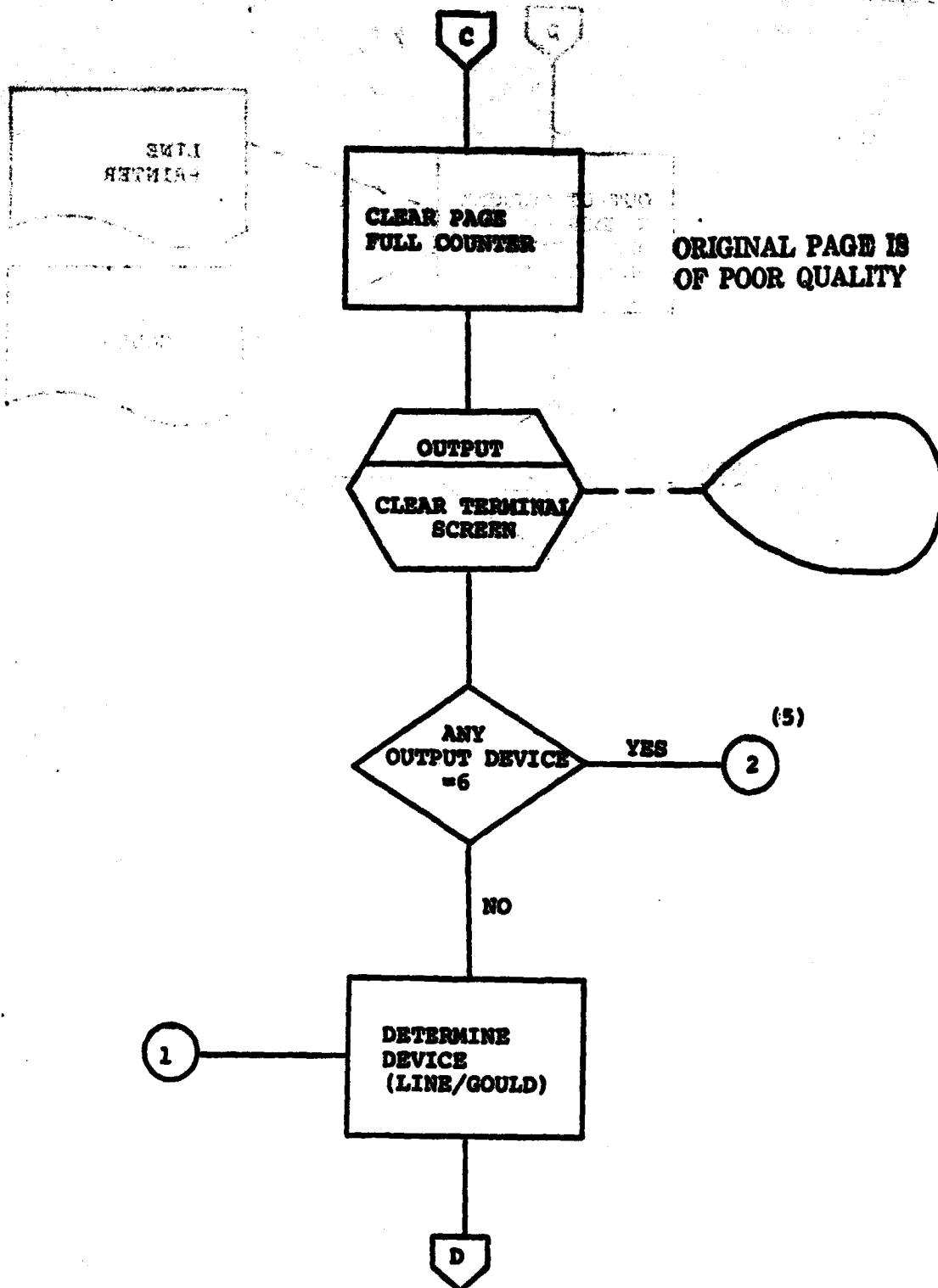
19.1 SUBROUTINE MENSTD

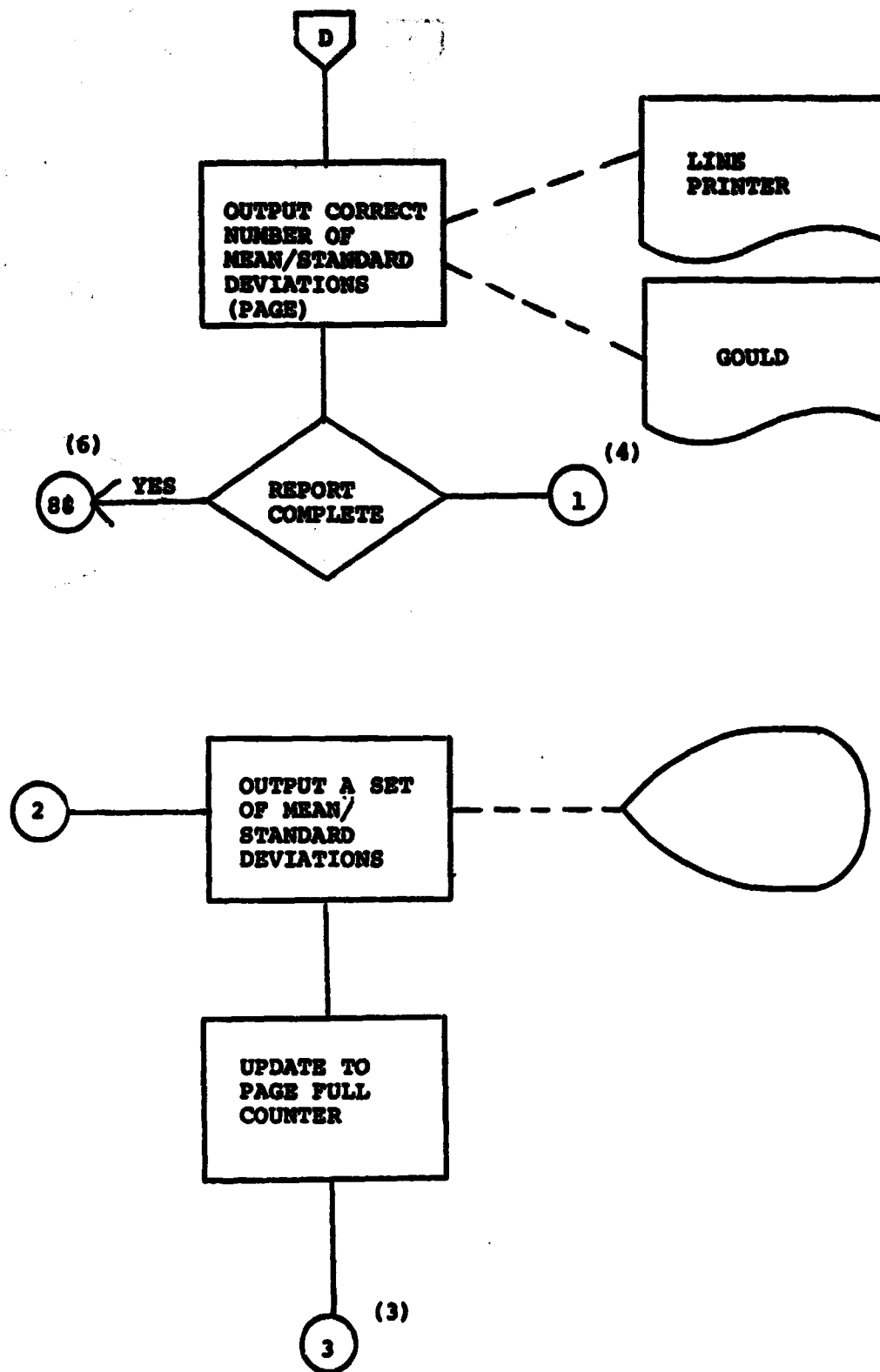


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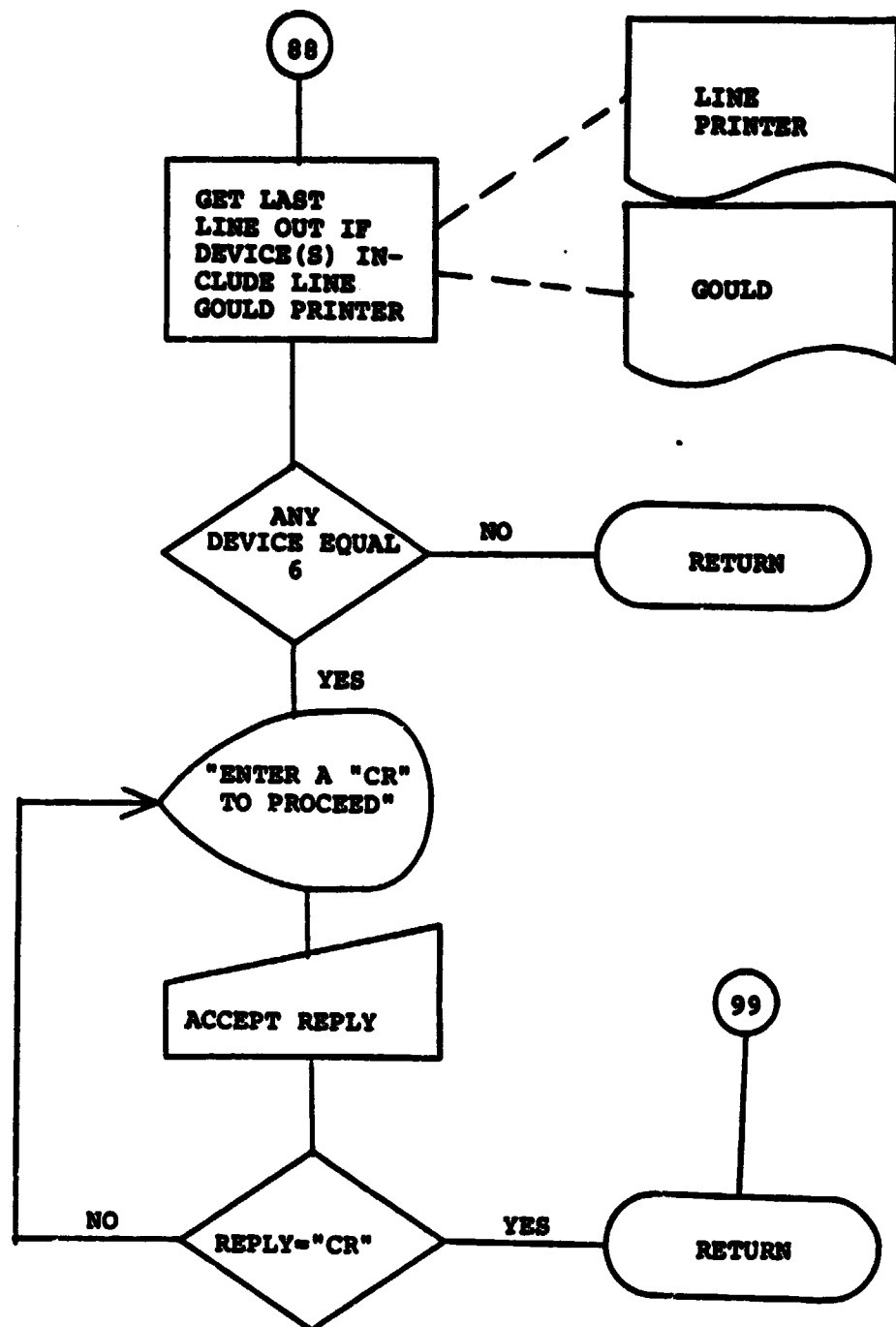








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19.2 SUBROUTINE INCLDS

HERTRAN IV-PLUS V02-004

12133117

29-AUG-77

PAGE 1

INCLDS.FTN

/TP:BLOCKS/MR

0001

SUBROUTINE INCLDS (DB1,DB2,DB3)

0002

IMPLICIT INTEGER (C-Y)

0003

IMPLICIT INTEGER (A)

0004

BYTE TIM(8),INPUT(74)

0005

INCLUDE 'SYIC300,33CAMSCOMON.INC'

0006

INCLUDE 'SYIC300,33CAMSPARAM.INC'

0007

PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=50

1,MAXV=11,NDBTS=209,DLSKIP=10,DSEKIP=10,MAXACD=6,MAXACC=4,

2NOSPD=6,N'DTWD=10

0008

EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,TX1),(C5,DISKID)

0009

INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)

0010

INTEGER ACDATE,SUBCAT,SUBPOP,CATKNT,CATTH

0011

BYTE CHNVEC,NBCHAN,NBSUB,DTCAT,DTCCLU

0012

COMMON/COM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NBCHAN,NBSUB,

1SUBCAT(MAXSUB),SUBPOP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NPDF,

2NBDU,NBTH,DTCAT(NDBTS),DTCCLU(NDBTS)

0013

INTEGER ADATES,SUNAZ,ANALST,FLDDAY,DSTDY,PDATE1,TDATE1

0014

INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDEN,GRID

0015

BYTE DELFLG,NBACC,S0ILGR,SUNEL,NSTART,NTYPE1,ALP,ALPB

0016

BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE

0017

COMMON/COM2/ISEG,DEFLG,NBACC,ADATES(2,MAXACD),S0ILGR(MAXACD),

1SUNEL(MAXACD),SUNAZ(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),

2DSTDY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),

3PDATE3(2),TDATE3(2),NDCAT,CATNAM(MAXCAT),ALP(MAXCAT),ALPB,

4 PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0

0018

INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,

1UFLAG4

0019

INTEGER PFLAG,DSKNT

0020

COMMON/COM3/PFLAG,DSKNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,

1,UFLAG2,UFLAG3,UFLAG4,NEXLAN(MAXSUB)

0021

INTEGER TX1,TY1,TX2,TY2,ACDISP,G,B,DTHIND,DSTARY,GMIN,GMAX,FUL

0022

INTEGER SPWIND,CLAWND,CLUWND

0023

COMMON/COM4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),IIS(4),G(4),

1R(4),DTHIND(5,NDBTS),SPWIND(5,NRSPND),IMWIND(4),NUMDST,

2DSTARY(NDBTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)

0024

COMMON/COM5/DISKID,RANDEN(NDBTS),GRID(NDBTS),DLABEL(NDBTS),

1TYPE(NDBTS),RELOC


```

C
C
0025      COMMON/LFR1/PSAVE1,BSAVE2
C
C
0026      DIMENSION D123(3),ACON(4),OTNS(60),UNCD(7)
0027      DIMENSION PSAVE1(244),PSAVE2(244),OPRNT(196)
C
C
C
C
0028      DATA ACON/1,2,3,4/
C
C
0029      D123(1) = D01
0030      D123(2) = D02
0031      D123(3) = D03
0032      PASSFL = 1
0033      WHOLE = 0
0034      PASS = 1
C
C
0035      CALL IDATE (MO,DAY,YP)
0036      CALL TIME (TIM)
C
C
C
C
0037      DO 50 I=1,60
0038      OTNS(I) = 1
C
C
0039      SN1 = 1
0040      SN2 = 1
0041      CALL PUTOUT (27,12)
0042      WRITE (6,5100)
0043      FORMAT (' INTERCLUSTER DISTANCE REPORT,')
0044      WRITE (6,5210) N'SUB
0045      FORMAT (1H0,' NUMBER OF SUBCLASSES = ',12)
0046      WRITE (6,5300)
0047      FORMAT ('/, ' FOR THE ENTIRE REPORT ENTER A "CRN",',
2      '/, 'S FOR A PARTICULAR PAGE ENTER THE STARTING ',
3      'CLUSTER NUMBERS      >')
C
0048      150  CALL PUTOUT (7)
0049      READ (6,5200) INPUT
0050      5200  FORMAT (74A1)
0051      CALL FRONT (INPUT,74)
0052      IF (INPUT(1),EQ. 'X') GO TO 9000
0053      IF (INPUT(1),NE. ' ') GO TO 5600
0054      WHOLE = 1
0055      GO TO 170
0056      5600  IP = 0
0057      CALL INTFF (IP,INPUT,74,SN1)

```

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INCLDS.FTN /TR:BLACKS/HR
0050 CALL INTFF (IP,INPUT,74,SN2)
0055 IF (SN1 .LT. 1 .OR. SN1 .GT. NOSUB) GO TO 5000
0060 IF (SN2 .LT. 1 .OR. SN2 .GT. NOSUB) GO TO 5000

C
C
C
C
C
C

0061 170 K2 = SN2
C
0062 175 DO 200 I=1,3
0063 IF (PASS .EQ. 2 .AND. D123(I) .NE. 6) GO TO 200
0064 IF (D123(I) .EQ. 0) GO TO 200
0065 IF (D123(I) .EQ. 6) CALL OUTPUT (27,12)
0066 IF (D123(I) .EQ. 8) WRITE (8,40)
0067 IF (D123(I) .EQ. 3) WRITE (3,40)
0068 40 FORMAT (1H1)
0069 WRITE (D123(I),1100) MO, DAY, YR, TIM
0070 1100 FORMAT (1H0,50X,'DATE: ',12,2('/' ,12),
1 /56X,12(' '),' /,51X,'TIME: ',8A1,/,56X,12(' '))
0071 200 CONTINUE
C

0072 DO 400 I=1,3
0073 IF (PASS .EQ. 2 .AND. D123(I) .NE. 6) GO TO 400
0074 IF (D123(I) .EQ. 0) GO TO 400
0075 WRITE (D123(I),1200)
0076 1200 FORMAT (1H0,23X,'INCLUSTER DISTANCE REPORT')
0077 400 CONTINUE
C

0078 DO 600 I=1,3
0079 IF (PASS .EQ. 2 .AND. D123(I) .NE. 6) GO TO 600
0080 IF (D123(I) .EQ. 0) GO TO 600
0081 WRITE (D123(I)-1500) ISEG
0082 WRITE (D123(I),1510) ((ACDATE(J,K),J=1,2),K=1,MAXACC)
0083 1500 FORMAT (1H0,' SEGMENT ID ',I6)
0084 1510 FORMAT (1H0,' ACQUISITION DATE(S) ',2X,(4(12,1/'13,5X)))
0085 600 CONTINUE
C

0086 DO 700 I=1,3
0087 IF (PASS .EQ. 2 .AND. D123(I) .NE. 6) GO TO 700
0088 IF (D123(I) .EQ. 0) GO TO 700
0089 WRITE (D123(I),1400) ((CHAVEC(J,K),J=1,4),K=1,4)
0090 1600 1400 FORMAT (1H0,' CLUSTERING CHANNELS ',2X,(4(11,1X)),3X,
1 (4(11,1X)),3X,(4(11,1X)),3X,(4(11,1X)))
0091 700 CONTINUE
C

0092 FCL = SN1
0093 DO 900 I=1,3
0094 IF (PASS .EQ. 2 .AND. D123(I) .NE. 6) GO TO 900
0095 IF (D123(I) .EQ. 0) GO TO 900
0096 LCL = SN1 + 13
0097 IF (D123(I) .EQ. 6) LCL = SN1 + 6


```

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INCLDS.FTN /TRIBLOCKS/WR OF POOR QUALITY
0098 IF (LCL .GT. NRSUB) LCL = NRSUB
C
0099 WRITE (D123(1),1700) (CATNAM(SUBCAT(J)),J=FCL,LCL)
0100 1700 FORMAT (1H0,' CATEGORY',(14(2X,A2)))
0101 WRITE (D123(1),1710) (OTNS(J),J=FCL,LCL)
0102 1710 FORMAT (' CLUSTER',(14(12,2X)))
0103 WRITE (D123(1),1720)
0104 1720 FORMAT (' ')
0105 900 CONTINUE
C
C
0106 IF (PASS .EQ. 2) GO TO 2000
0107 CALL DATARD (SV1,SN2,NRSUB)
C
C
0108 DO 3000 I=1,14
0109 DO 3000 J=1,14
0110 I = J+(I-14-14)
0111 BPRNT(0) = 0.0
0112 DO 3000 K=1,4
0113 DO 3000 L=1,4
0114 M = L+(K-4-4)+(J-16-16)
0115 N = L+(K-4-4)+(I-16-16)
0116 IF (CHNVEC(L,K) .EQ. 0) GO TO 3000
0117 BPRNT(0) = ABS(USAVE1(N) - USAVE2(N)) + BPRNT(0)
0118 3000 CONTINUE
C
C
0119 2000 DO 6000 I=1,7
0120 IF (PASS.EQ. 2 .AND. D123(1) .NE. 6) GO TO 6000
0121 IF (D123(1) .EQ. 6) GO TO 6000
0122 SLC = SN1
0123 ELC = SN1 + 13
0124 FCL = SN2
0125 LCL = SN2 + 13
0126 IF (D123(1) .NE. 6) GO TO 2500
0127 LCL = SN2 + 6
0128 ELC = SN1 + 6
0129 2500 IF (ELC .GT. NRSUB) ELC = NRSUB
0130 IF (LCL .GT. NRSUB) LCL = NRSUB
0131 M = 0
0132 P = 1
0133 IF (PASS .EQ. 2 .AND. D123(1) .EQ. 6) P = 99
0134 K = 0
C
0135 DO 4500 J=FCL,LCL
0136 M = M + 1
C
0137 DO 4200 K=1,(ELC-SLC+1)
0138 IF (((SN2+M-1) - (SN1+K-1)) .EQ. 0) GO TO 4300
0139 4200 CONTINUE
C
0140 K = (FCL-SLC+1)
0141 4300 WRITE (D123(1),4400) CATNAM(SUBCAT(J)),OTNS(J),
1 (BPRNT(L),L=P,(K-P-1))
0142 4400 FORMAT (' ',1X,A2,3X,12,2X,(14(1X,F6.1)))

```



```

0143 4900 P = P + 14
C
0144 6000 CONTINUE
C
0145 6100 ADDN = 14
0146 IF (D01.EQ. 0 .OR. D02.EQ. 0 .OR. D03.EQ. 0) GO TO 8000
0147 6300 SN2 = SN2 + ADDN
0148 IF (SN2.GT. N0SUB) GO TO 6500
0149 GO TO 6700
0150 6500 SN1 = SN1 + ADDN
0151 IF (SN1.GT. N0SUB) GO TO 9100
0152 PASS = 1
0153 SN2 = K2
0154 6700 IF (WHOLE.NE. 1) GO TO 7000
0155 IF (D01.EQ. 0 .OR. D02.EQ. 0 .OR. D03.EQ. 0) GO TO 7000
0156 IF (SN2.LT. SN1) GO TO 6100
0157 GO TO 175
C
0158 7000 WRITE (6,7100) SN1,SN2
0159 7100 FORMAT (1H0, ' FOR THE NEXT SEQUENTIAL PAGE ENTER A "CR",
1 /, 'FOR ANY OTHER PAGE ENTER THE STARTING CLUSTER NUMBERS ',
2 12, '12, ' >')
C
0160 CALL OUTPUT (7)
0161 READ (6,5200) INPUT
0162 CALL FRONT (INPUT,74)
0163 IF (INPUT(1).EQ. 'X') GO TO 9000
0164 IF (INPUT(1).NE. ' ') GO TO 7300
0165 SN11 = SN1
0166 SN22 = SN2
0167 GO TO 7500
0168 7300 IP = 0
0169 CALL INTFF (IP,INPUT,74,SN11)
0170 CALL INTFF (IP,INPUT,74,SN22)
0171 7500 IF (SN11.LT. 1 .OR. SN11.GT. N0SUB) GO TO 7000
0172 IF (SN22.LT. 1 .OR. SN22.GT. N0SUB) GO TO 7000
0173 SN1 = SN11
0174 SN2 = SN22
0175 GO TO 175
C
0176 8030 ADDN = 7
0177 IF (PASS.EQ. 1) GO TO 8500
0178 PASS = 1
0179 GO TO 6300
0180 8500 PASS = 2
0181 GO TO 6300
C
0182 8700 WRITE (6,1100) MO, DAY, YR, TIM
0183 WRITE (6,8710) ISEG
0184 8710 FORMAT (1H0, ' NO CLUSTER DATA AVAILABLE FOR SEGMENT ', I6)
C
0185 9100 WRITE (6,9200)

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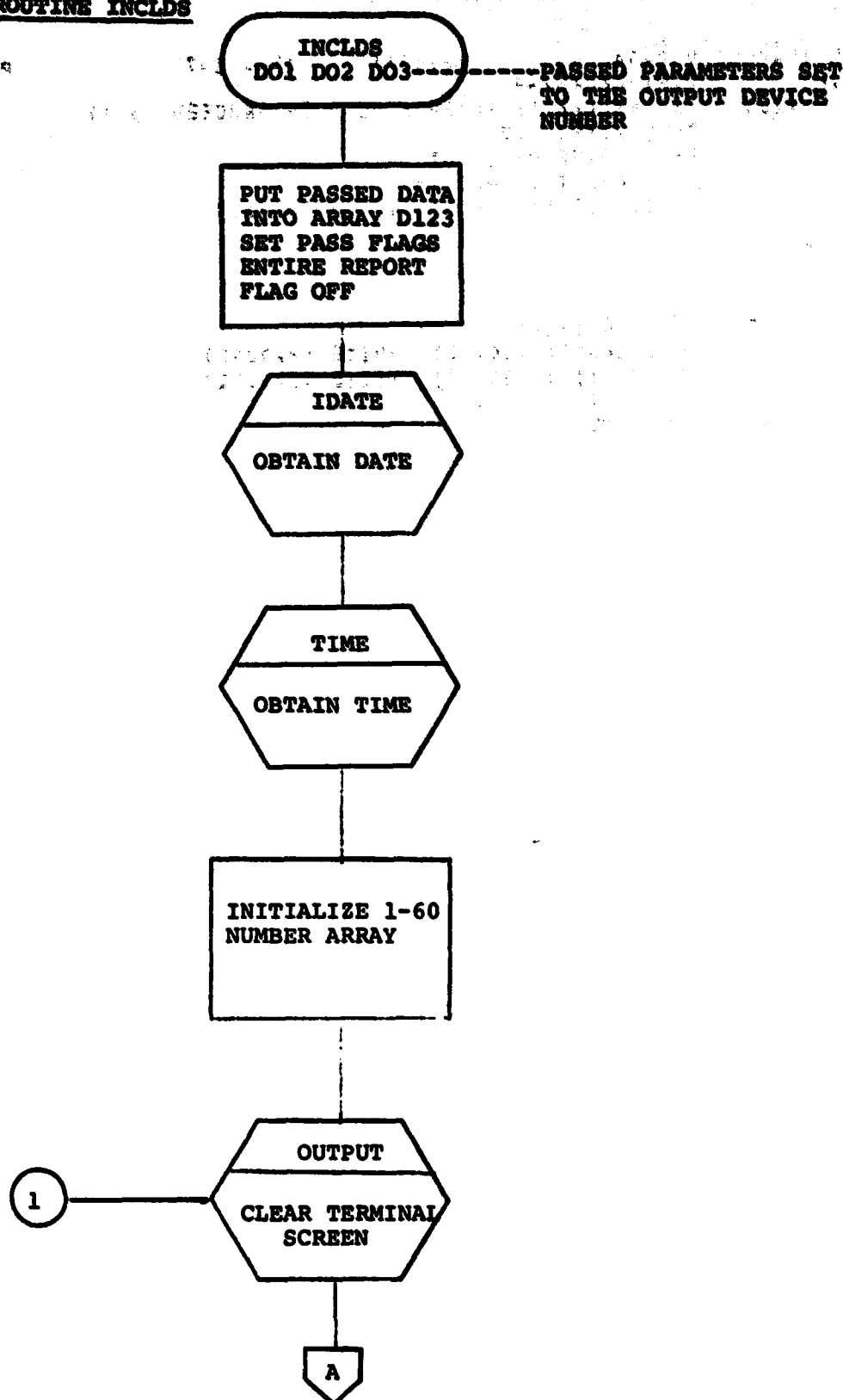
FORTRAN IV-PLUS V02-04 12153117 29-AUG-77 PAGE 6

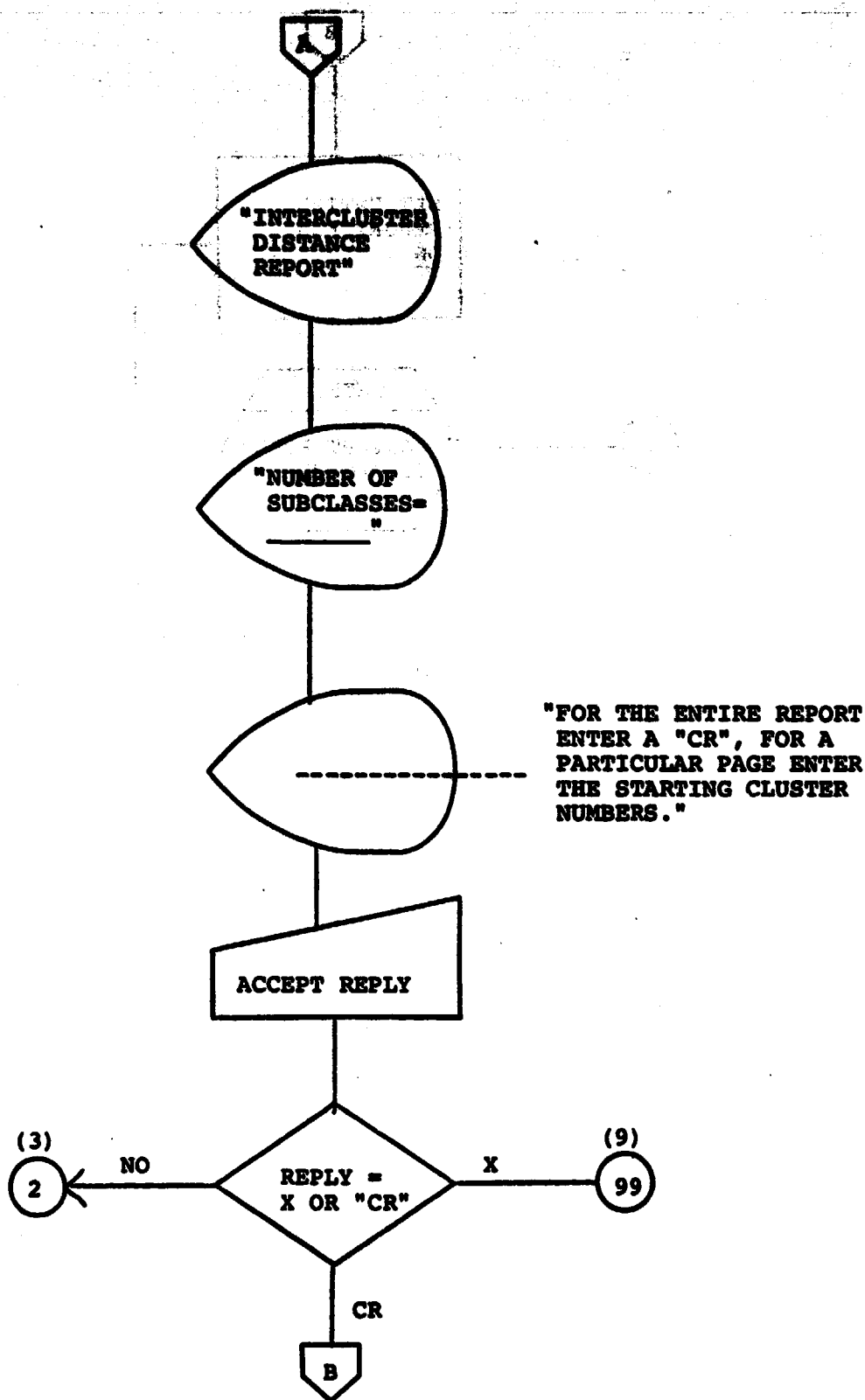
INCLDS.FIN /TRIPBLOCKS/WR
0186 9200 FORMAT (//,'S ENTER A "CR" TO PROCEED > ')
0187 CALL OUTPUT (7)
0188 READ (6,5200) INPUT
0189 CALL FRONT (INPUT,74)
0190 IF (INPUT(1),NE. ' ') GO TO 9100

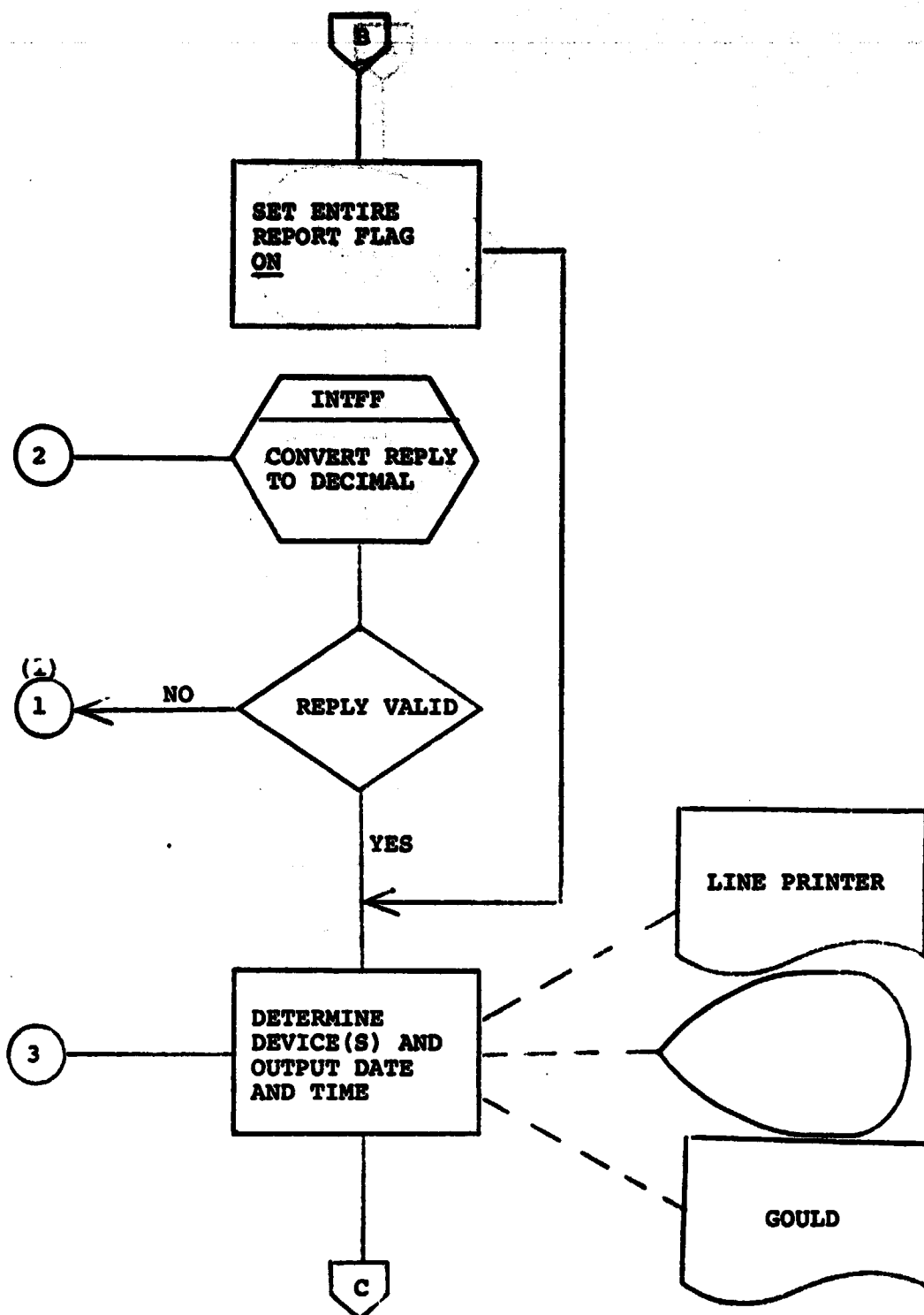
0191 9000 D2 9092 I=1,3
0192 IF (D123(1),EQ. 8) WRITE (8,9091)
0193 IF (D123(1),EQ. 3) WRITE (3,9091)
0194 9091 FORMAT (1H0,' ')
0195 9092 CONTINUE

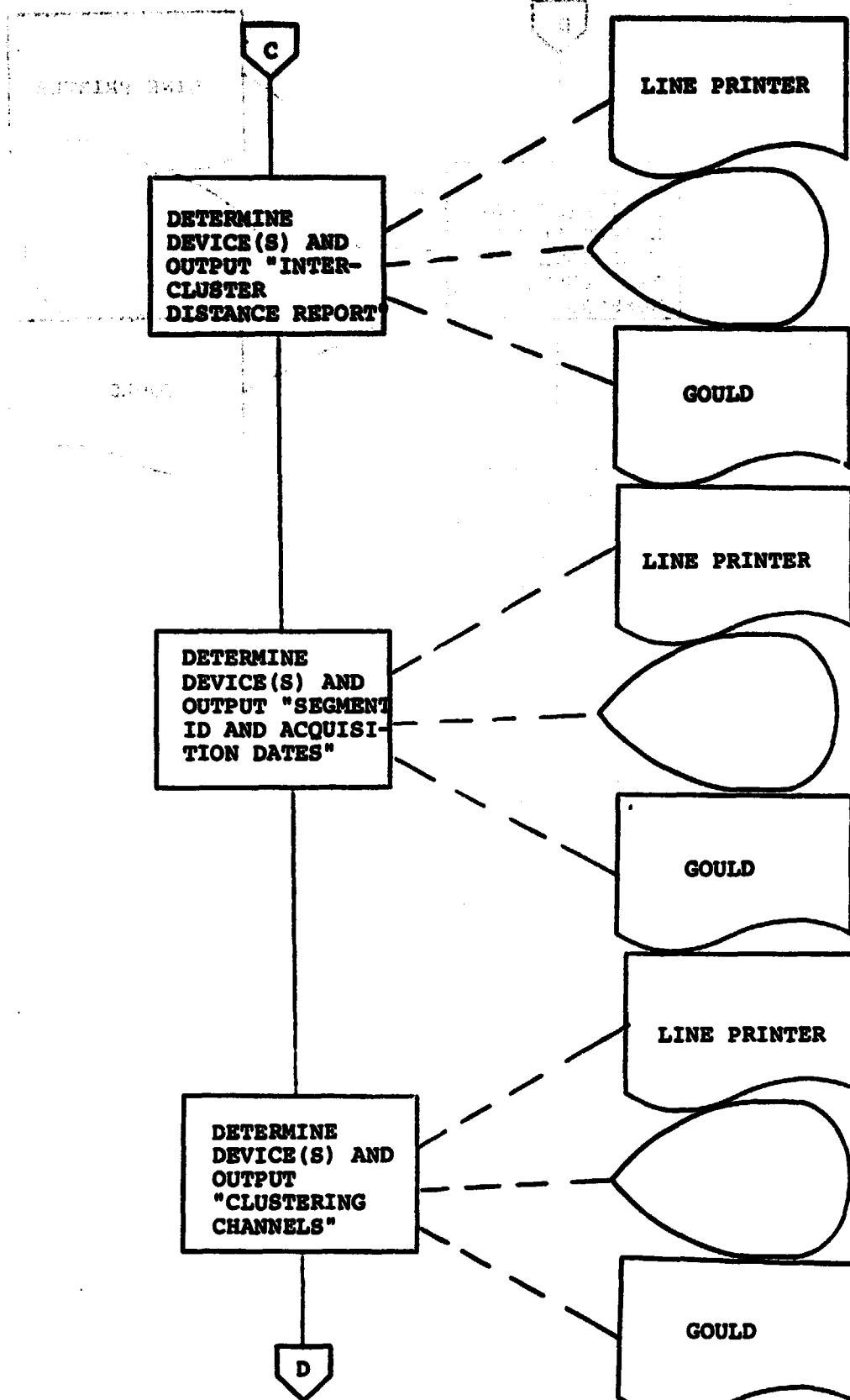
0196 RETURN
0197 END

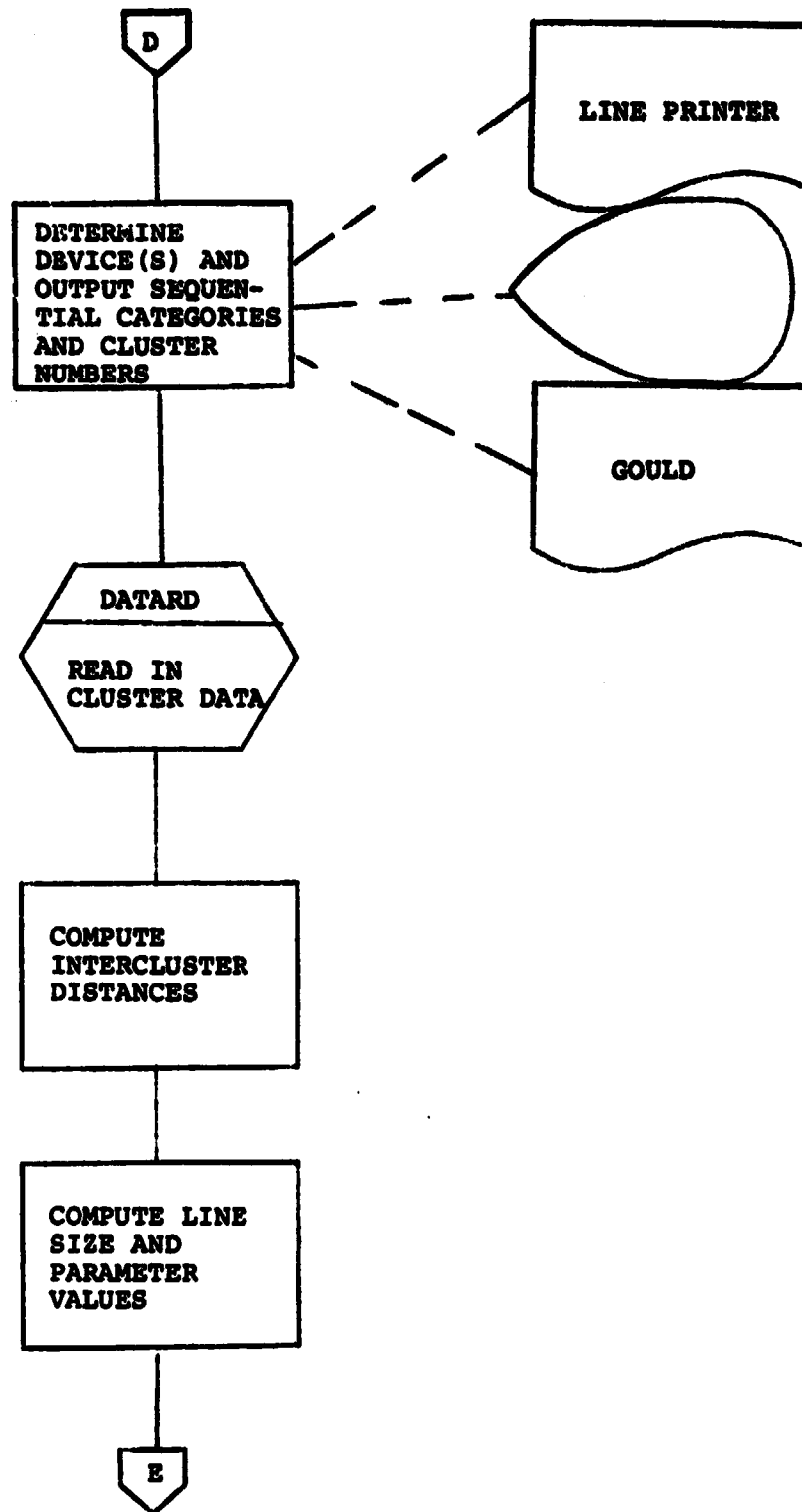
19.2 SUBROUTINE INCLDS

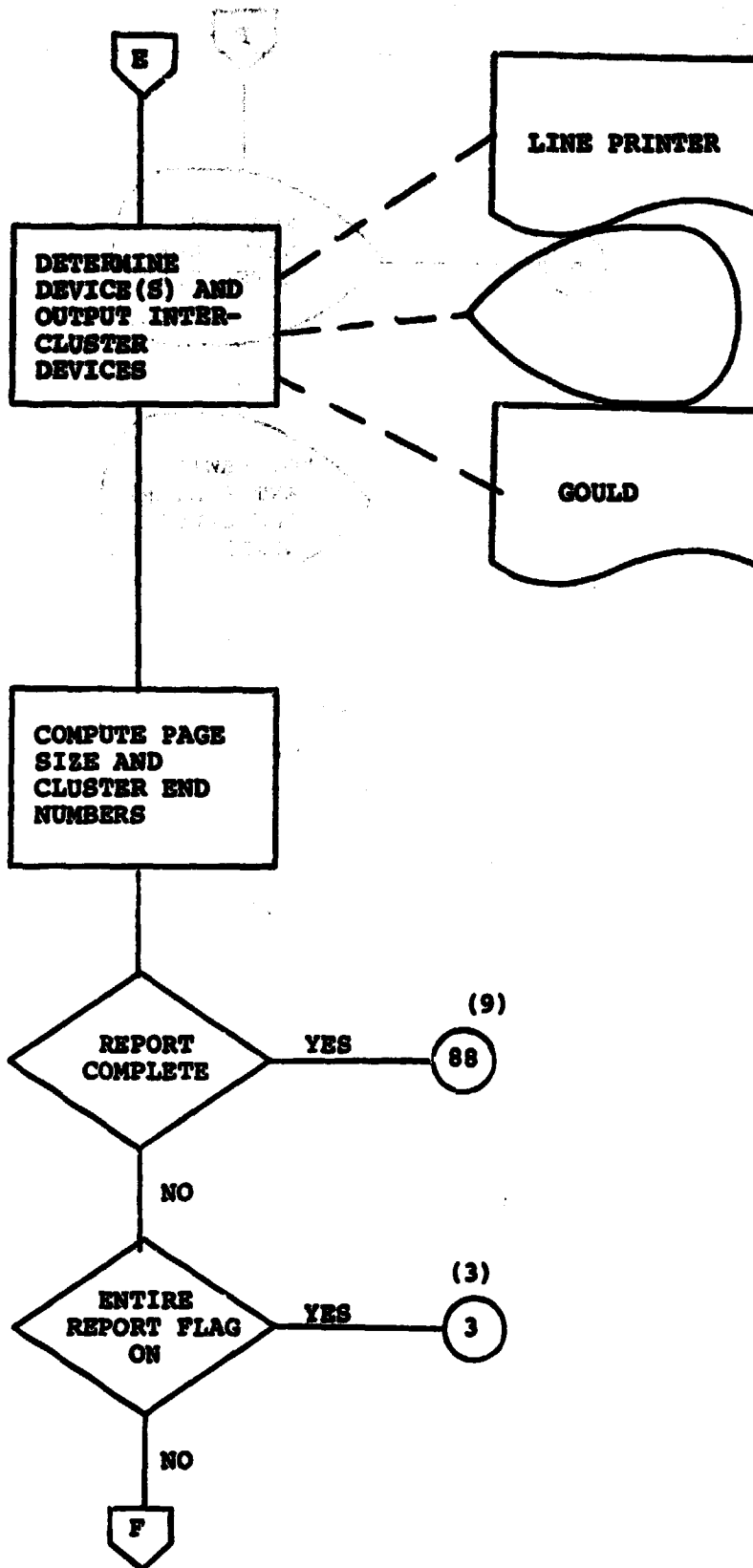


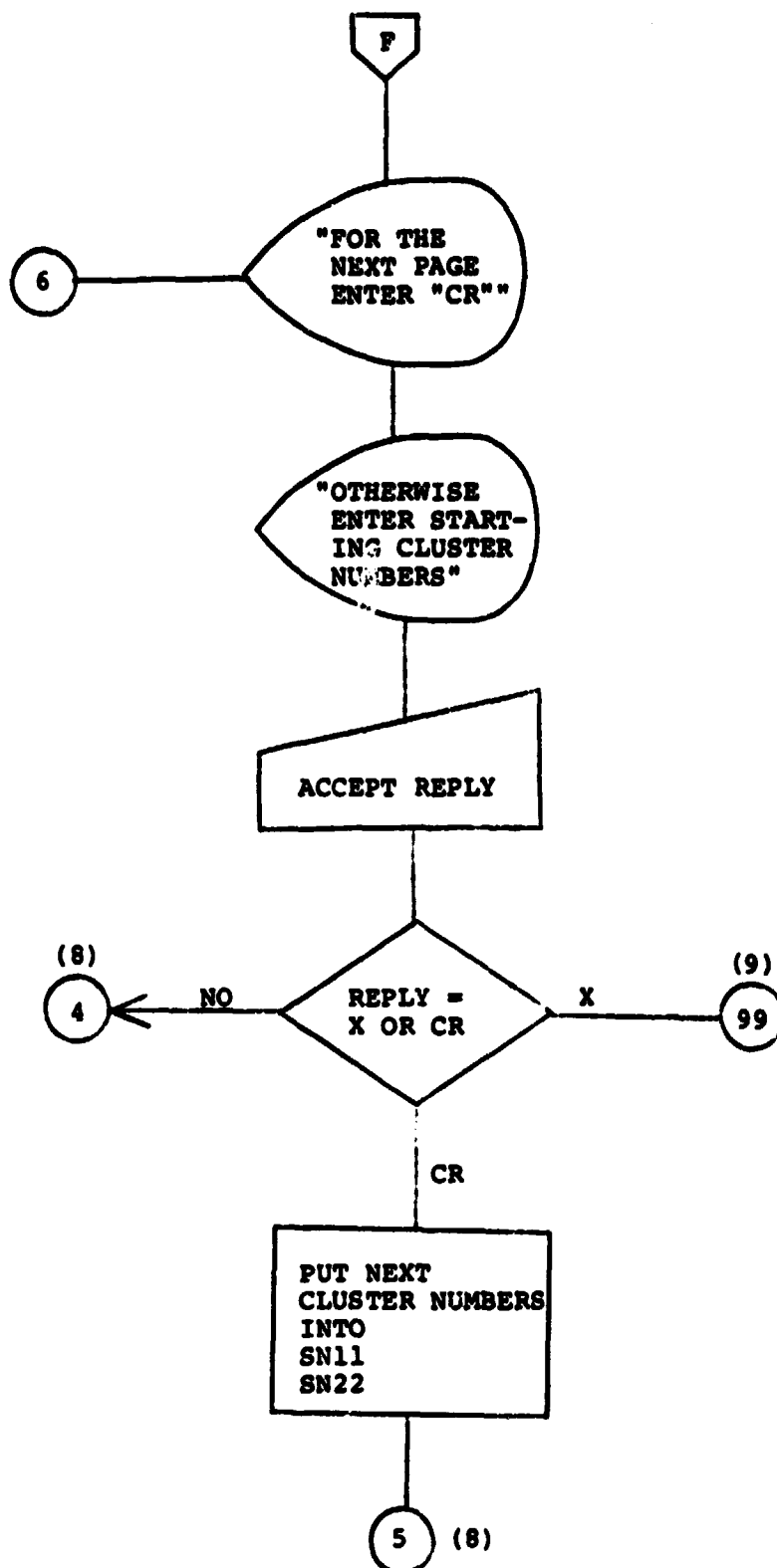


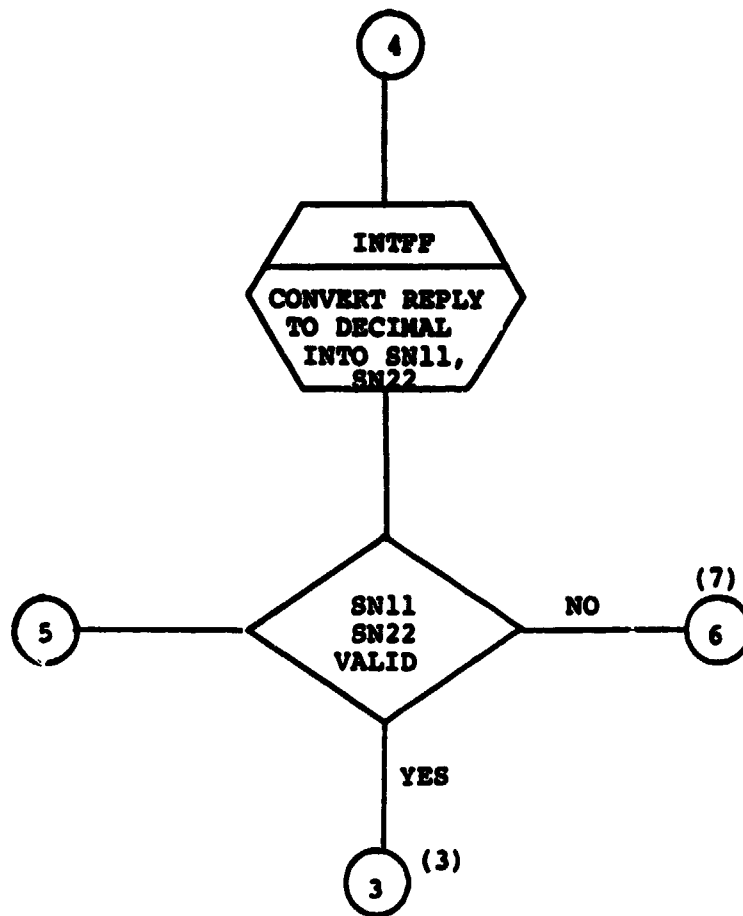


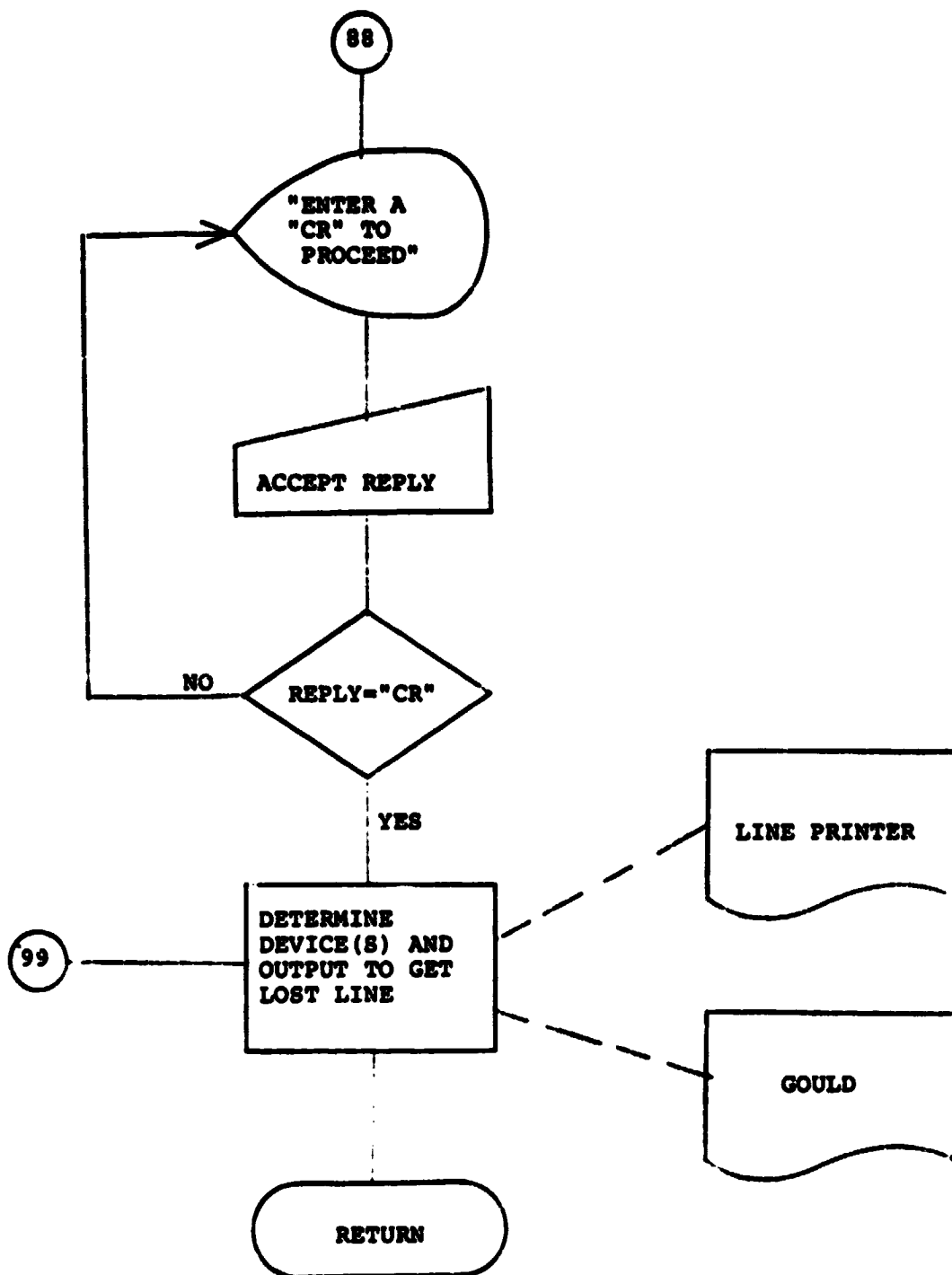












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19.3 SUBROUTINE DATARD

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INCLDS.FTN /TRIPBLOCKS/WR
0001 SUBROUTINE DATARD (SN1,SN2,NOSUB)

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```

      C
      C
      C
      C
      C
      C
      C
0002      IMPLICIT INTEGER (A)
0003      IMPLICIT INTEGER (C-Y)
      C
      C
0004      BYTE BUFFER(144),NOSUB
      C
      C
0005      COMMON/LFR1/BSAVE1,BSAVE2
      C
      C
0006      EQUIVALENCE (BUFFER(1),R1(1))
      C
      C
0007      DIMENSION R1(36),BSAVE1(244),BSAVE2(244)
      C
      C
      C
      C
      C
0008      J = 1
0009      DO 200 I=SN1,SN1+13
0010      IF (NOSUB .LT. 1) GO TO 300
0011      READ (7:1) BUFFER
      C
0012      DO 100 K=1,7,2
0013      BSAVE1(J) = R1(K)
0014      J = J + 1
      C
0015      DO 110 K=10,16,2
0016      BSAVE1(J) = R1(K)
0017      J = J + 1
      C
0018      DO 120 K=19,25,2
0019      BSAVE1(J) = R1(K)
0020      J = J + 1
      C
0021      DO 130 K=28,34,2
0022      BSAVE1(J) = R1(K)
0023      J = J + 1
      C
      C
0024      200 CONTINUE
      C
      C
      C
0025      300 J = 1
0026      DO 500 I=SN2,SN2+13
```

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FORTRAN IV-PLUS		V02-04	12153147	29-AUG-77	PAGE 11
INCLDS,FTN		/TR:BLUCKS/WR			
0027		IF (1.GT. N2SUB)	GO TO 9000		
0028		READ (7:1) BUFFER			
	C				
0029		DO 400 K=1,7,2			
0030		BSAVE2(J) = B1(K)			
0031	400	J = J + 1			
	C				
0032		DO 410 K=10,16,2			
0033		BSAVE2(J) = B1(K)			
0034	410	J = J + 1			
	C				
0035		DO 420 K=19,25,2			
0036		BSAVE2(J) = B1(K)			
0037	420	J = J + 1			
	C				
0038		DO 430 K=28,34,2			
0039		BSAVE2(J) = B1(K)			
0040	430	J = J + 1			
	C				
	C				
	C				
0041	500	CONTINUE			
	C				
	C				
	C				
0042	9000	RETURN			
	C				
	C				
	C				
0043		END			

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19.3 SUBROUTINE DATARD

A flow chart for this subroutine is not available.

19.4 SUBROUTINE HSEKPG

SUBROUTINE HSEKPG (SCRNLC)

CC

SUBROUTINE TO HOUSE KEEP THE TERMINAL SCREEN

CC

IMPLICIT INTEGER (A-Z)

DATA SCRNCI/O/

IF (SCRNLC .EQ. -1) GO TO 100
SCRNCI = SCRNCI + SCRNLC
IF (SCRNCI .LT. 25) RETURN
CALL OUTPUT (27,12)
SCRNCI = 0
RETURN

100

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19.4 SUBROUTINE HSEKPG

A flow chart for this subroutine is not available.

~~1111~~

19.5 SUBROUTINE BRFCU

WFORTRAN IV-PLUS V02-04

12154100

29-AUG-77

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```
REPORT.FTN      /TR:BLOCKS/WR
0001      SUBROUTINE BRFCU(U1,U2,U3)
0002      IMPLICIT INTEGER(A-Z)
0003      IF(U1.EQ.0)GO TO 1
0004      CALL REPORT(U1)
0005      1      CONTINUE
0006      IF(U2.EQ.0)GO TO 2
0007      CALL REPORT(U2)
0008      2      CONTINUE
0009      IF(U3.EQ.0)GO TO 3
0010      CALL REPORT(U3)
0011      3      CONTINUE
0012      RETURN
0013      END
```


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19.5 SUBROUTINE BRFCU

A flow chart for this subroutine is not available.

19.6 SUBROUTINE REPORT

```

FORTRAN IV-PLUS V02-04      12154110      29-AUG-77      PAGE 3
REPORT,FTN      /TRILOCKS/HR
0001      SUBROUTINE REPORT(KU)
0002      IMPLICIT INTEGER(A-Z)
0003      REAL PDS,T1,T2,T3
0004      INCLUDE 'SYIC300,3JCAMSCOMMON,INC'
0005      INCLUDE 'SYIC300,3JCAMSPARAM,INC'
0006      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=50
      1,MAXV=11,NDBTS=209,DLSKIP=10,DSSKIP=10,MAXACD=6,MAXACC=4,
      2N0SPWD=6,N0DTWD=10
0007      EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,TX1),(C5,DISKID)
0008      INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)
      C*
0009      INTEGER ACDATE,SUBCAT,SUBP2P,CATKNT,CATTH
0010      BYTE CHNVEC,N0CHAN,N0SUB,D0TCAT,D0TCLU
0011      COMMON/C0M1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),N0CHAN,N0SUB,
      1SUBCAT(MAXSUB),SUBP2P(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),N0D7,
      2N0DU,N0TH,D0TCAT(N0DTS),D0TCLU(N0DTS)
      C*
0012      INTEGER ADATES,SUNAZ,ANALST,FLDDAY,D0TDAY,PDATE1,TDATE1
0013      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDOM,GRID
0014      BYTE DELFLG,N0ACO,S0ILGR,SUNEL,NSTART,NTYPE1,ALP,ALP0
0015      BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE
0016      COMMON/C0M2/ISEG,DELFLG,N0ACO,ADATES(2,MAXACD),S0ILGR(MAXACD),
      1SUNEL(MAXACD),SUNAZ(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),
      2D0TDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
      3PDATE3(2),TDATE3(2),N0CAT,CATNAM(MAXCAT),ALP(MAXCAT),ALP0,
      4      PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0
      C*
0017      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
      1UFLAG4
0018      INTEGER PFLAG,DSKMNT
0019      COMMON/C0M3/PFLAG,DSKMNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1
      1,UFLAG2,UFLAG3,UFLAG4,NEULAB(MAXSUB)
      C*
0020      INTEGER TX1,TY1,TX2,TY2,ACDISP,G,B,DTWIND,D0TARY,GMIN,GMAX,FUL
0021      INTEGER SPWIND,CLAWND,CLUWND
0022      COMMON/C0M4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),II1(4),G(4),
      1G(4),DTWIND(5,N0DTWD),SPWIND(5,N0SPWD),IMWIND(4),NUMD0T,
      2D0TARY(N0DTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)
0023      COMMON/C0M5/DISKID,RANDOM(N0DTS),GRID(N0DTS),DLABEL(N0DTS),
      1TYPE(N0DTS),RECL7C
0024      DIMENSION DATA(72),LN(4)
0025      BYTE TIM(8),DDN
0026      DATA 10,BLK,LLS/7,' ',17/
0027      PAGE=1
0028      T2=NLIN
0029      T3=NPIX
0030      T2=T2+T3
0031      CALL TIME(TIM)
0032      FIND(1011)
0033      IS=1
0034      LS=LLS
0035      CALL IDATE(M0,DAY,YR)
0036      4      IF(KU,NE,6)GO TO 5
0037      CALL CSQDPH(KU,PAGE,PLK,1)
0038      GO TO 6
0039      5      WRITE(KU,112)

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FORTRAN IV-PLUS V02-04      12154110      29-AUG-77      PAGE 4
REPORT,FIN /TR)BL0CKS/WR
0040      WRITE(KU,100)M7, DAY,YR
0041      WRITE(KU,101)TIM
0042      6      WRITE(KU,102)
0043      WRITE(KU,103)ISEG
0044      WRITE(KU,104)((ACDATE(J,K),J=1,2),K=1,MAXACC)
0045      WRITE(KU,105)CHNVEC
0046      WRITE(KU,106)
0047      DO 1 I=IS,NOSUR
0048      READ(IU,I,ERR=9,END=10)DATA
0049      DO 2 K=1,MAXACC
0050      GN(K)=0
0051      IF(ACDATE(I,K).EQ.0)GO TO 2
0052      J=K*10-1
0053      GN(K)=DATA(J)-SOILGN(K)
0054      2      CONTINUE
0055      K=SUHCAT(I)
0056      CAT=CATNAM(K)
0057      T1=SUROP(I)
0058      POS=T1/T2
0059      POS=POS*100.0
0060      WRITE(KU,107)I,CAT,SUROP(I),POS,GN
0061      IF(KU.NE.6)GO TO 1
0062      IF(I.LT.LS)GO TO 1
0063      LS=LS+LLS
0064      IF(LS.GT.NOSUR)LS=NOSUR
0065      IS=I+1
0066      WRITE(KU,113)
0067      READ(6,111)DDD
0068      IF(DDD.EQ.'X')GO TO 4
0069      IF(I.NE.NOSUR)GO TO 4
0070      GO TO 4
0071      1      CONTINUE
0072      4      RETURN
0073      9      WRITE(6,109)
0074      GO TO 4
0075      10     WRITE(6,109)
0076      GO TO 8
0077      100     FORMAT(46X,'DATE ',12,2(' ',' '),12)/52X,3('---',X))
0078      101     FORMAT(10145X,'TIME ',8A1,752X,3('---',X))
0079      102     FORMAT(10124X,'BRIEF CLUSTER REPORT')
0080      103     FORMAT(101,' CLUSTER REPORT FOR SEGMENT NUMBER ',14/36X,'-----')
0081      104     FORMAT(101,' ACQUISITION DATE(S) ',4(12,1X,13,6X))
0082      105     FORMAT(101,' CLUSTERING CHANNELS ',4(12,4X))
0083      106     FORMAT(101,35X,'PERCENTAGE OF',6X,'GREEN'/ ' CLUSTER',4X,'CATEGORY',
1.4X,'POPULATION',7X,'SEGMENT',4X,'NUMBER')
0084      107     FORMAT(18,10X,A2,7X,17,4X,F10,2,3X,4(1X,14))
0085      108     FORMAT(' ERROR READING STATISTICS FILE FOR CLUSTER REPORT')
0086      109     FORMAT(' END OF FILE ON STATISTICS FILE FOR CLUSTER REPORT')
0087      110     FORMAT(' ')
0088      111     FORMAT(A1)
0089      112     FORMAT('1 ')
0090      113     FORMAT('SCR TO CONTINUE, X TO ABORT REPORTS > ')
0091      END

```


19.6 SUBROUTINE REPORT

A flow chart for this subroutine is not available.

19.7 SUBROUTINE CLUSNN

FERTRAN IV-PLUS V02-04

12154123

29-AUG-77

PAGE 8

REPORT.FTN

2181BLOCKS/HR

C

NEAREST NEIGHBOR CLUSTER REPORT

0001 SUBROUTINE CLUSNN(U1,U2,U3)

0002 IMPLICIT INTEGER(A-Z)

0003 IF(U1.EQ.0)GO TO 1

0004 CALL REPRTN(U1)

0005 1 CONTINUE

0006 IF(U2.EQ.0)GO TO 2

0007 CALL REPRTN(U2)

0008 2 CONTINUE

0009 IF(U3.EQ.0)GO TO 3

0010 CALL REPRTN(U3)

0011 3 CONTINUE

0012 RETURN

0013 END

ORIGINAL PAGE IS
OF POOR QUALITY

19.7 SUBROUTINE CLUSNN

A flow chart for this subroutine is not available.

19.8 SUBROUTINE REPRTN

```

FBRTNAN IV-PLUS V02-04      12154125      2V-AUG-77      PAGE 10
REPORT,FTN_ /IRBLCKS/HR
0001      SUBROUTINE REPRTN(KU)
0002      IMPLICIT INTEGER (A-Z)
0003      INCLUDE 'SYI(300,3)CAMSCOMON,INC'
0004      INCLUDE 'SYI(300,3)CAMSPARAM,INC'
0005      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NP(X)=196,NLIN=117,MAXFLD=50
      1,MAXV=11,NDPTS=209,DISKIP=10,DSSKIP=10,MAXACH=6,MAXACC=4,
      2,NBSPWD=6,NBDTWD=10
0006      EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,TX1),(C5,DISKID)
0007      INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)
      C*
0008      INTEGER ACDATE,SUBCAT,SURP,P,CATKNT,CATTH
0009      BYTE CHNVEC,NBCHAN,NBSUR,DTCAT,DTCCLU
0010      COMMON/COM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NBCHAN,NBSUR,
      1,SUBCAT(MAXSUR),SURP(P,MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NBDT,
      2,NBDT,NBTH,DTCAT(NDPTS),DTCCLU(NDPTS)
      C*
0011      INTEGER ADATES,SUNA2,ANALST,FLDDAY,DOTDAY,PDATE1,TDATE1
0012      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDOM,GRID
0013      BYTE DELFLG,NPACQ,SZILGR,SINEL,NSTART,NTYPE1,ALP,ALPB
0014      BYTE PCTCT,PCTCT2,VAR,VAR2,DLABEL,TYPE
0015      COMMON/COM2/ISEG,DELFLG,NPACQ,ADATES(2,MAXACC),SZILGR(MAXACC),
      1,SINEL(MAXACC),SUNA2(MAXACC),IMDATE(2),ANALST(5),FLDDAY(2),
      2,DOTDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
      3,PDATE3(2),TDATE3(2),NDCAT,CATNAM(MAXCAT),ALP(MAXCAT),ALPB,
      4      PCTCT(MAXCAT),PCTCT2,VAR(MAXCAT),VAR2
      C*
0016      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
      1,UFLAG4
0017      INTEGER PFLAG,CSKNT
0018      COMMON/COM3/PFLAG,CSKNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1
      1,UFLAG2,UFLAG3,UFLAG4,EFLAG(MAXSUB)
      C*
0019      INTEGER TX1,TY1,TX2,TY2,ACDISP,G,B,DTWIND,DOTARY,GMIN,GMAX,FUL
0020      INTEGER SPWIND,CLAWND,CLUWND
0021      COMMON/COM4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I11(4),G(4),
      1,B(4),DTWIND(5),DOTARY(5),SPWIND(5),IMWIND(4),NUMDOT,
      2,DOTARY(NDPTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)
0022      COMMON/COM5/DISKID,RANDOM(NDPTS),GRID(NDPTS),DLABEL(NDPTS),
      1,TYPE(NDPTS),PECLAC
0023      DIMENSION VAR1(NDPTS),DOT(5)
0024      BYTE LABL(5),TIM(8),DLABEL(NDPTS)
0025      REAL TCIS(NDPTS),PA(5)
0026      BYTE DPA
0027      DATA INCR,KNCH,IU,CLK,LLS/5,4,7,1,1,17/
0028      IF(EFLAG4.NE.1)GO TO 90
0029      IF(NTYPE1.EQ.0)GO TO 90
0030      IS=1
0031      LSLLS
0032      PAGE=1
0033      CLUSE(UNIT=IU,DISP=SE='SAVE')
0034      CALL ASSIGN(IU,'SYI(300,1)IN,T-P(1)')
0035      DEFINE FILE IU(MAXSUR,732,1,NBREC)
0036      CALL IDATE(MR,DAY,YR)
0037      CALL TIME(TIM)
0038      INR=1
0039      HEAD(IU,INR)KNN,ND

```


REPRRT,FTN

/TP12LOCKS/KN

```

0040      N1=4
0041      N1=N1+1/ACR
0042      N2=N1+KACR
0043      IF(N1.GT.KNN)GO TO 4
0044      IF(N2.GT.KNN)N2=KNN
0045      IF(KN.NE.6)GO TO 7
0046      CALL CSODPH(A,PAGE,PLK,1)
0047      GO TO 8
0048      7 WRITE(KU,112)
0049      WRITE(KU,110)NY,DAY,YR
0050      WRITE(KU,101)TIM
0051      WRITE(KU,102)
0052      WRITE(KU,103)ISET
0053      WRITE(KU,104)((ACDATE(J,K),J=1,2),K=1,MAXACC)
0054      WRITE(KU,105)CANNVLC
0055      WRITE(KU,106)
0056      D2=3/ISIS,MSUR
0057      IACR=1
0058      HEAD(I=1:IA)(A=1:LA)(F=1:FL)(L=1:LK)(T=1:TS)(K=1:ND)
0059      NAC
0060      NY=2/MS=1,12
0061      NACR=1
0062      J=KLAFL(K)
0063      LACL(I)=CATNA(J)
0064      IACR=1/IDIS(K)
0065      DPT(I)=DPTID(I)
0066      8 CONTINUE
0067      WRITE(KU,107)1,(FAC(I),I=1,NF),LACL(I),N=1,NV)
0068      IF(KU.NE.6)GO TO 3
0069      IF(1.LT.LS)GO TO 3
0070      IS=LS+LS
0071      IF(1.GT.DPSUB)LS=MSUR
0072      IS=1
0073      WRITE(KU,113)
0074      HEAD(5,11)DUM
0075      IF(DUM.EQ.'X')GO TO 4
0076      IF(1.NE.MSUR)GO TO 4
0077      GO TO 5
0078      5 CONTINUE
0079      WRITE(KU,110)
0080      IF(KU.EQ.3)GO TO 1
0081      GO TO 1
0082      4 CLASP(J,IT=10,HIGH SP=1SAV 1)
0083      IACR=1/IT=J,NAME=1(300,1)CLUSTATE,TYPE=1/OLD,
1 IACR=1/1DIRECT,MAXREC=MAXCAT,RECKRDSIZE=36)
0084      5 RETURN
0085      60 WRITE(6,104)TYPE1,EFLAG4
0086      WRITE(KU,113)
0087      HEAD(6,11)DUM
0088      IF(DUM.EQ.'X')GO TO 4
0089      GO TO 5
0090      100 FORMAT(40X,'DATE ',12,2(1/1,1)/52X,3(1=1,X))
0091      101 FORMAT(101,45X,'TIME ',1,1/1,1/52X,3(1=1,X))
0092      102 FORMAT(101,24X,'CLUSTER ',1,1/1,1/52X,3(1=1,X))
0093      103 FORMAT(101,' SEGMENT IN ',1,1/1,1/52X,3(1=1,X))
0094      104 FORMAT(101,' ACQUISITION DATE(S) ',1,4(12,1X,13,6X))

```


REPORT.FTN /TR1BLOCKS/WR

```
0095 105 FORMAT('0',' CLUSTERING CHANNELS ',4(4I2.4X))
0096 106 FORMAT('0CLUSTER',10X,'NEAREST NEIGHBOR DISTANCE/DBT GRID NUMBER/
1LABEL')
0097 107 FORMAT(13,10X,5(F7.2,'/',13,'/',1,A2))
0098 108 FORMAT('0CANNOT PROVIDE THE NEAREST NEIGHBOR CLUSTER REPORT'/
1' NTYPE1 = ',13,10X,'EFLAG4 = ',14)
0099 109 FORMAT(A1)
0100 110 FORMAT(' ')
0101 111 FORMAT(A1)
0102 112 FORMAT('1 ')
0103 113 FORMAT('SCR T2 CONTINUE. X T0 ABORT REPORTS > ')
0104
```


19.8 SUBROUTINE REPRTN

A flow chart for this subroutine is not available.

20. FIELD DEFINITION REPORT FLDRPT

```

MFQTRAN IV-PLUS V02-J4          12154155  29-AUG-77          PAGE 1
FLDRPT,FTN      /TRIGLOCKS/WR
0001      IMPLICIT INTEGER(A-Z)
0002      INCLUDE 'C300,3JCAMSCNHN,INC'
0003      INCLUDE 'SYIC300,3JCAMSPARM,INC'
0004      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=50
      1,MAXV=11,NBOTS=209,DLSP=10,DSSKIP=10,MAXACD=6,MAXACC=4,
      2NOSPD=6,NOUTWD=10
0005      EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,TX1),(C5,DISKID)
0006      INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)
      C*
0007      INTEGER ACDATE,SURCAT,SURPOP,CATKNT,CATTH
0008      BYTE CHNVEC,NCHAN,NFSUR,DTCAT,DTCCLU
0009      COMMON /C0M1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NCHAN,NFSUR,
      1SURCAT(MAXSUR),SURPOP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NODD,
      2NODU,CAT,DTCAT(NBOTS),DTCCLU(NDETS)
      C*
0010      INTEGER ADATES,SUR42,ANALST,FLDDAY,DOTDAY,PDATE1,TDATE1
0011      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDOM,GRID
0012      BYTE DELFLG,NBACO,SFILGR,SINFL,NSTART,NTYPE1,ALP,ALP0
0013      BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE
0014      COMMON /C0M2/ISEG,DELFLG,NBACO,ADATES(2,MAXACD),SFILGR(MAXACD),
      1SINFL(MAXACD),SUR42(MAXACD),IMPDATE(2),ANALST(5),FLDDAY(2),
      2DOTDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
      3PDATE3(2),TDATE3(2),NRCAT,CATNAM(MAXCAT),ALP(MAXCAT),ALP0,
      4PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0
      C*
0015      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
      1UFLAG4
0016      INTEGER PFLAG,DSKID,T
0017      COMMON /C0M3/PFLAG,DSKID,T,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,
      1UFLAG2,UFLAG3,UFLAG4,EFLAG6(MAXSLR)
      C*
0018      INTEGER TX1,TY1,TX2,TY2,ACDISP,G,G,DWIND,DUTARY,GMIN,GMAX,FUL
0019      INTEGER SPINAD,CLAWND,CLUWND
0020      COMMON /C0M4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I11(4),G(4),
      1G(4),DWIND(5,NBOTS),SPINAD(5,NOSPD),IMWIND(4),NUMDOT,
      2DUTARY(NDETS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)
      3COMMON /C0M5/DISKID,RANDOM(NDETS),GRID(NDETS),DLABEL(NDETS),
      1TYPE(NDETS),RECLNO
0022      BYTE BVTX,DEV,AV,LABEL
0023      DIMENSION FLONAM(3),VERTIX(2,MAXV),TYP(3)
0024      DIMENSION BVTX(2,MAXV)
0025      DATA DD/2HDD/
0026      DATA DM/2HDM/
0027      DATA TYP/2H 2H 2H /
0028      ID=6
0029      II=1
0030      CALL ELAPSE(II)
0031      1 CALL OUTPUT(7)
0032      CALL OUTPUT(27,12)
0033      IF(EFLAG3.EQ.0) WRITE(10,1010)
0034      IF(EFLAG3.EQ.0) GO TO 200
0035      WRITE(10,10)
0036      10 FORMAT(5 REPORT DEVICE (T)ERMINAL,(G)OULD OR (L)INE PRINTER?>')
0037      READ(10,20) DEV
0038      20 FORMAT(A1)
0039      IF(DEV.EQ.'M',OR(DEV.EQ.'X')) GO TO 202

```



```

FLDRPT.FTN      /TRIANGLES.WR
0040      IF(DEV.EQ.'T') GO TO 100
0041      IF(DEV.EQ.'G') GO TO 101
0042      IF(DEV.EQ.'L') GO TO 1
0043      I2=8
0044      CALL ASSIGN(10,'LP')
0045      MLINE=18
0046      WRITE(10,1008)
0047      GO TO 102
0048  101  I2=9
0049      CALL ASSIGN(10,'GP')
0050      WRITE(10,1008)
0051      MLINE=18
0052      GO TO 102
0053  100  I2=10
0054      CALL ASSIGN(10,'TI')
0055      MLINE=5
0056  102  IP=1
0057      OPEN(UNIT=7,NAME='C300.11FIELDS.TMP',ACCESS='SEQUENTIAL',
+TYPE='UNKNOWN',RECORDSIZE=15,FORM='UNFORMATTED')
0058      READ(7,END=400,ERR=400) N0FLD
0059      IF(N0FLD.EQ.0) GO TO 400
0060      CALL CSGRPH(10,IP,'FIELD DEFINITION REPORT ',24)
0061      WRITE(10,1000)
0062  1000  FORMAT(1 FIELD/           1ST   2ND   3RD   4TH   5TH   6TH   7TH   8
+TH   9TH  10TH ')
0063      WRITE(10,1001)
0064  1001  FORMAT(1 TYPE           '.10(' VERTEX'))
0065      WRITE(10,1002)
0066  1002  FORMAT(' ')
0067      ICNT=1
0068      DO 200 I=1,N0FLD
0069      IF(ICNT.GT.MLINE) GO TO 900
0070  500  READ(7) FLDNAM,LABEL,NV,((VRTX(J,K),J=1,2),K=1,MAXV)
0071      IF(LABEL.EQ.-1) TYP(2)=D1
0072      IF(LABEL.EQ.-2) TYP(2)=D2
0073      DO 100 J=1,MAXV
0074      DO 100 K=1,2
0075      VERTEX(K,J)=I*BYTE(0,VRTX(K,J))
0076  190  CONTINUE
0077  190  CONTINUE
0078      WRITE(10,1003) FLDNAM,(VERTEX(2,K),K=1,NV-1)
0079  1003  FORMAT(' ',3A2,' LINE',10I6)
0080      WRITE(10,1004) TYP,(VERTEX(1,K),K=1,NV-1)
0081  1004  FORMAT(' ',3A2,' FIXL',10I6)
0082      WRITE(10,1002)
0083      ICNT=ICNT+1
0084  200  CONTINUE
0085      WRITE(10,1009)
0086  1009  FORMAT(' END OF REPORT ')
0087  201  CONTINUE
0088      CLOSE(UNIT=1)
0089      CLOSE(UNIT=7)
0090  202  I1=2
0091      CALL ELAPSE(I1)
0092  300  CALL OUTPUT(7)
0093      WRITE(10,1007)

```



```

FORTRAN IV-PLUS V02-04      12154155      29-AUG-77      PAGE 3
FLDRPT,FTN /TP,BLOCKS/WR
0094 1007 FORMAT('S (R)ESTART OR E(X)IT?')
0095 READ(ID,1006) DEV
0096 IF(DEV.EQ.'R') G2 TO 1
0097 IF(DEV.NE.'X') G2 TO 300
0098 INCLUDE '[300,3]CANSAVE,INC'
0099 * OPEN(UNIT=1,NAME='[300,1]GLOBAL.TMP',FORM='UNFORMATTED',
* 1 TYPE='UNKNOWN',ERR=9999)
0100 * WRITE(1)C1
0101 * WRITE(1)C2
0102 * WRITE(1)C3
0103 * WRITE(1)C4
0104 * WRITE(1)C5
0105 * CLOSE(UNIT=1)
0106 * G2 TO 9991
0107 * 9999 TYPE 9990
0108 * 9990 FORMAT(1X,'OPEN FAILURE ON [300,1]GLOBAL.TMP--NO RESTART')
0109 * 9991 CONTINUE
0110 CALL SETEF(50)
0111 STOP
0112 900 IF(1.GT.9)G2 TO 902
0113 WRITE(ID,1008)
0114 1008 FORMAT(1H1,' ')
0115 G2 TO 901
0116 900 CONTINUE
0117 CALL OUTPUT(7)
0118 WRITE(ID,1005)
0119 1005 FORMAT('ENTER "F" FOR PAGE FORWARD,"R" FOR RESTART OR ',
1 'X" FOR EXIT')
0120 READ(ID,1006) DEV
0121 1006 FORMAT(A1)
0122 IF(DEV.NE.'F') G2 TO 201
0123 901 CALL OUTPUT(27,1)
0124 CALL CSGRPH(12,12,'FIELD DEFINITION REPORT ',24)
0125 WRITE(ID,1000)
0126 WRITE(12,1001)
0127 ICPT=0
0128 WRITE(12,1002)
0129 G2 TO 500
0130 400 WRITE(ID,1010)
0131 1010 FORMAT('FIELD DEFINITION FILE EMPTY ')
0132 G2 TO 201
0133 END

```


20. FIELD DEFINITION REPORT FLDRPT

A flow chart of this program can be found in volume 1,
page 3-279.

21. PERMANENT DATA BASE UPDATE

HF0RTRAN IV-PLUS V02-04
PRMUPD.FTN /TR18BLOCKS/WR

12155131

29-AUG-77

PAGE 1

```

C.....
C
C          PERMANENT DATA BASE UPDATE
C
C.....
0001      IMPLICIT INTEGER (A-W)
0002      INCLUDE 'SYIC300,31CAMSCOMMON,INC'
0003      INCLUDE 'SYIC300,31CAMSPARAM,INC'
0004      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=50
      1,MAXV=11,NDBTS=209,DLSP=10,DSSKIP=10,MAXACD=6,MAXACC=4,
      2NOSPWD=6,NBDTWD=10
0005      EQUIVALENCE (C1,ACDATE),(C2,ISFG),(C3,PFLAG),(C4,TX1),(C5,DISKID)
0006      INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)
      C*
0007      INTEGER ACDATE,SUBCAT,SUPERP,CATKNT,CATTH
0008      BYTE CHVEC,NCHAN,NOSUB,CATCAT,DOTCLU
0009      COMMON/C2M1/ACDATE(2,MAXACC),CHVEC(MAXCHN,MAXACC),NCHAN,NOSUR,
      1SUBCAT(MAXSUB),SUPERP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NDB,
      2NDDJ,NDBH,DOTCAT(NDBTS),DOTCLU(NDBTS)
      C*
0010      INTEGER ADATES,SUNAZ,ANALST,FLDDAY,DOTDAY,PDATE1,TDATE1
0011      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDOM,GRID
0012      BYTE DELFLG,NACD,S01LGR,SUNEL,NSTART,NTYPE1,ALP,ALP0
0013      BYTE PCTCT,PCTCT2,VAR,VAR0,DLABEL,TYPE
0014      COMMON/C2M2/ISFG,DEFLG,NACD,ADATES(2,MAXACC),S01LGR(MAXACC),
      1SUNEL(MAXACC),SUNAZ(MAXACC),IMDATE(2),ANALST(5),FLDDAY(2),
      2DOTDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
      3PDATE3(2),TDATE3(2),N2CAT,CATNAM(MAXCAT),ALP(MAXCAT),ALP0,
      4      PCTCT(MAXCAT),PCTCT2,VAR(MAXCAT),VAR0
      C*
0015      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
      1UFLAG4
0016      INTEGER PFLAG,DSKINT
0017      COMMON/C2M3/PFLAG,DSKINT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,
      1,UFLAG2,UFLAG3,UFLAG4,NEWLIB(MAXSUB)
      C*
0018      INTEGER TX1,TY1,IX1,TX2,TY2,ACHISP,G,B,DTWIND,DOTARY,GMIN,GMAX,FUL
0019      INTEGER SPWIND,CLAWND,CLUWND
0020      COMMON/C2M4/TX1,TY1,TX2,TY2,IX1,IX2,IY1,IY2,ACHISP(2),I11(4),G(4),
      1IX(4),DTWIND(5),DOTARY,SPWIND(5),IMWIND(4),NUMDOT,
      2DOTARY(NDBTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)
0021      COMMON/C2M5/DISKID,RANDOM(NDBTS),GRID(NDBTS),DLABEL(NDBTS),
      1TYPE(NDBTS),RECLC
0022      COMMON/LOCAL/FILNAM(15),FILTYP(23),K,JULIO
0023      DIMENSION A(4),SEG(2)
0024      REAL X1,X2,X3
0025      BYTE W
0026      DIMENSION N(74)
0027      LOGICAL*1 SEGLAG(4),ZM(2)
0028      EQUIVALENCE (SEG(2(1)),SEGLAG(1))
0029      DATA ZM/101,101/
0030      DATA FILTYP/2HDA,2HDM,2HAP,2HPC,2HLA,2HST,2HCL,2HAS,2HPC,2HLU,
      2HST,2HCL,2HUS,2HPS,2HTA,2HTT,2HST,2HAT,2HND,2HDT,2HSF,2HIE,
      2HLD/
0031      DATA FILNAM/2HDB,2H21,2H23,2H00,2H,3,2H00,2H3,2H,2H,2H,2H,
      2H,2H,2H,2H,2H11,0/

```


PRMUPD.FTN /TRIBLOCKS/WR

```

0032      101 FORMAT (2A2)
0033      102 FORMAT(1H0,4X,'TOTAL ELAPSED TIME = ',12,''',12,''',12)
0034      103 FORMAT (74A1)
0035      110 FORMAT(1H0,56X,'DATE ',12,'/',12,'/',12)
0036      111 FORMAT(1H0,56X,'TIME ',4A2)
0037      112 FORMAT(1H0,12X,'PERMANENT DATA BASE UPDATE/VERSION ',
      * 'MAY 31,1977')
0038      113 FORMAT(1H0,'YOU ARE ABOUT TO INITIATE AN UPDATE TO THE ',
      * 'PERMANENT DATA BASE FILES')
0039      114 FORMAT(1H0,'THERE HAVE BEEN NO UPDATES TO THE DDT DATA FILE ',
      * 'DURING THIS SESSION.')
0040      115 FORMAT(1HS,'DO YOU WISH TO (F)ORCE AN OFF LOAD OF THE ',
      * 'DDT DATA FILE? >')
0041      116 FORMAT(1H0,'THERE HAVE BEEN NO UPDATES TO THE FIELDS FILE ',
      * 'DURING THIS SESSION.')
0042      117 FORMAT(1HS,'DO YOU WISH TO (F)ORCE AN OFF LOAD OF THE ',
      * 'FIELDS FILE? >')
0043      118 FORMAT(1HS,'DO YOU WISH TO (C)ONTINUE OR E(X)IT? >')
0044      119 FORMAT(/' PREMATURE EXIT IN THE INITIALIZATION PROGRAM--DATA BASE UPD.
      1TE NOT ALLOWED'/)
0045      150 FORMAT(14)
0046          IJ=1
0047          CALL ELAPSE(IJ)
0048          CALL ASSIGN(10,'GP1')
0049          CALL OUTPUT(27,12)
0050          CALL IDATE(I,J,K)
0051          TYPE 110,I,J,K
0052          CALL TIME(1)
0053          TYPE 111, A
0054          TYPE 112
0055          IF(ISEQ.NE.0) GO TO 4
0056          TYPE 119
0057          GO TO 202
0058      4. TYPE 113
0059          TYPE 118
0060          ACCEPT 105,K
0061          CALL FRONT(W,74)
0062          IF(W(1).EQ.'X') GO TO 202
0063          IF(W(1).EQ.'C') GO TO 4
0064          GO TO 4
0065      5 CALL JULIAN(K,I,J,JUL12)
0066          ENCODE(4,150,SFGND) ISEQ
0067          DO 6 F=1,4
0068          IF(SEQLPR(E).EQ.' ') SEQLPR(E)=ZRO(1)
0069      6 CONTINUE
0070          CALL SUBSTR(SEQN2,1,4,FILNAM,14,4)
0071          IF(UFLAG3.EQ.1) GO TO 10
0072          TYPE 114
0073          TYPE 115
0074          ACCEPT 105,K
0075          CALL FRONT(W,74)
0076          IF(W(1).NE.'F') GO TO 20
0077          UFLAG3=1
0078          CALL DDTSAV
0079          UFLAG3=0
0080          GO TO 20

```

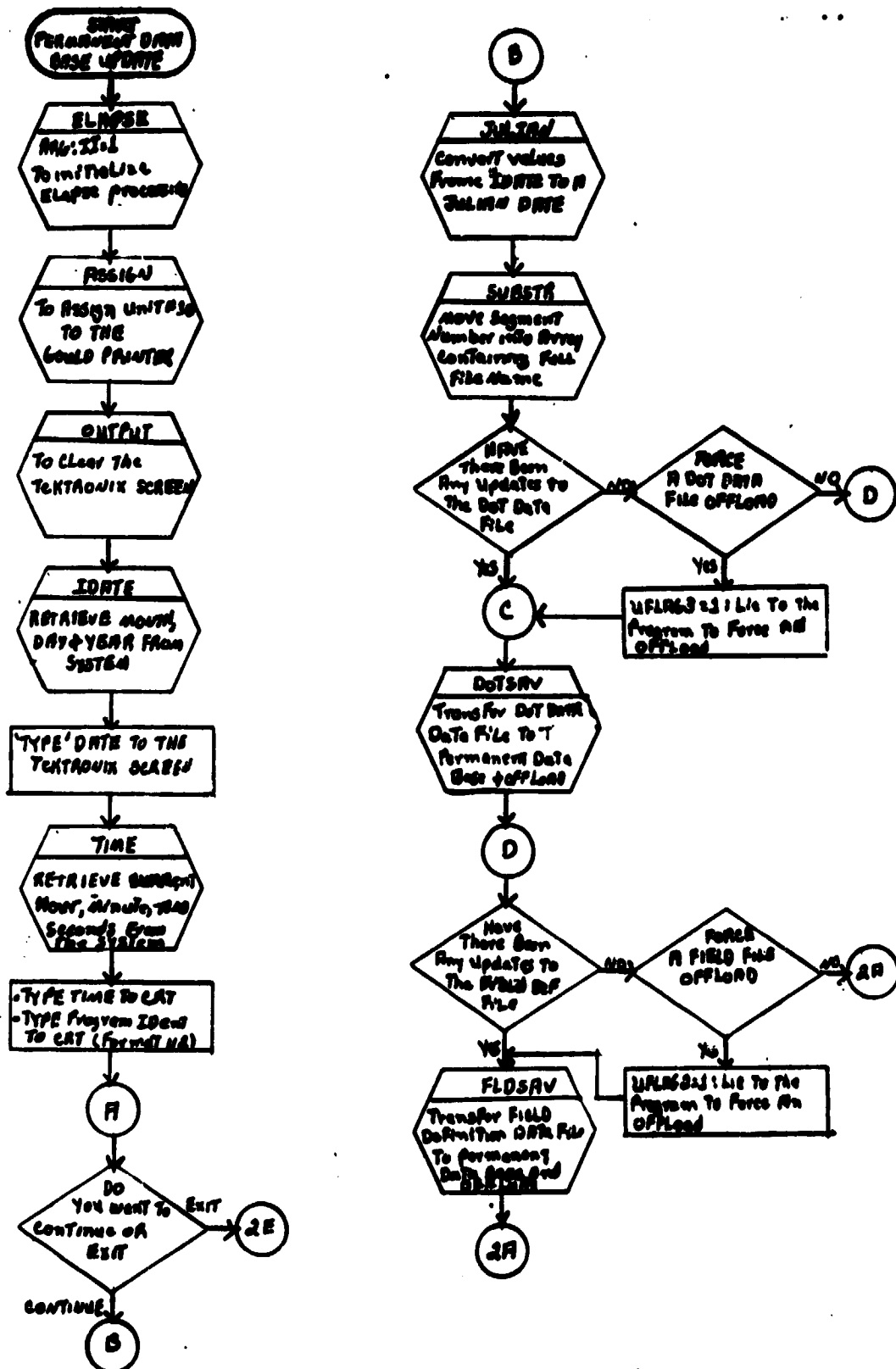


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PRMUPD,FTN      /YR19LOCKS/WR
0081      10 CALL UOTS AV
0082      20 IF(EFLAG3 .EQ. 0) GO TO 40
0083      IF(UFLAG2 .EQ. 1) GO TO 30
0084      TYPE 116
0085      TYPE 117
0086      ACCEPT 105,H
0087      CALL FRONT(W,74)
0088      IF(W(1) .NE. 'F') GO TO 40
0089      UFLAG2=1
0090      CALL FLDS AV
0091      UFLAG2=0
0092      GO TO 40
0093      30 CALL FLDS AV
0094      40 IF(EFLAG1 .EQ. 0 .AND. EFLAG2 .EQ. 0) GO TO 42
0095      IF(PFLAG .NE. 0) GO TO 41
0096      CALL CLAS AV
0097      GO TO 42
0098      41 IF(UFLAG1 .EQ. 1) CALL CLAS AV
0099      42 IF(EFLAG5 .EQ. 0) GO TO 44
0100      IF(PFLAG .NE. 0) GO TO 43
0101      CALL STAS AV
0102      GO TO 44
0103      43 IF(UFLAG4 .EQ. 1) CALL STAS AV
0104      44 CALL ADLST
0105      OPEN(UNIT=1,NAME='SYN010300,300'DIRFILE.DAT',TYPE='OLD',
* MAXREC=200,ACCESS='DIRECT',RECORDS(2E=128)
0106      WRITE(1,RECL=0) C2
0107      CLOSE(UNIT=1,DISPOSE='SAVE')
0108      201 CALL RTGE (SEGN,1,J,K,FILTYP,A)
0109      202 II=2
0110      CALL CLAPSE(II)
0111      TYPE 118
0112      ACCEPT 105,H
0113      CALL FRONT(W,74)
0114      CALL SETEF(50)
0115      STOP 1
0116      END

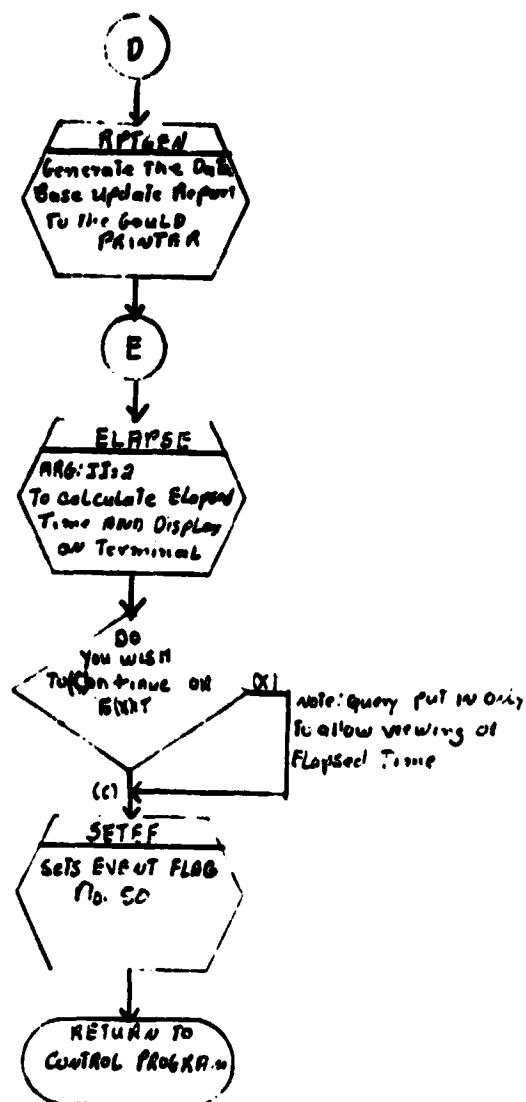
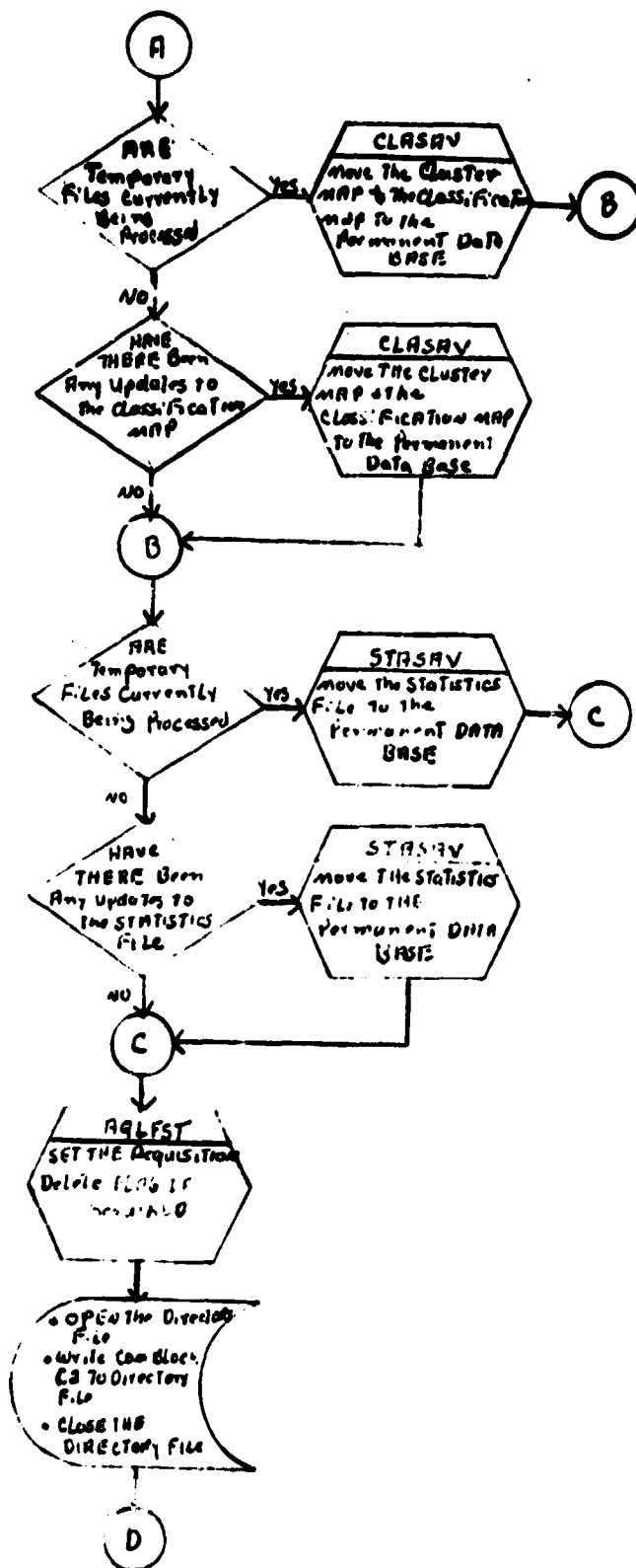
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21. PERMANENT DATA BASE UPDATE



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21.1 SUBROUTINE AQLFST

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PHMUPD.FTN /TRIPLOCKS/MR

SUBROUTINE AQLFST

IMPLICIT INTEGER (A-W)

INCLUDE 'SYIC300.31CAMSCOM.M,INC'

INCLUDE 'SYIC300.31CAMSPARM.M,INC'

PARAMETER MAXCAT=67,MAXSUB=67,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=50

1,MAXV=11,NDOTS=209,CLSKIP=10,DSKIP=10,MAXACD=6,MAXACC=4,

2,2SPND=5,NPDTH=10

EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,TX1),(C5,DISKID)

INTEGER C1(469),C2(256),C3(71),C4(345),C5(629)

C* INTEGER ACDATE,SUBCAT,SUPP,P,CATKNT,CATTH

C* BYTE CHAVEC,NCHAN,PSUB,DATCAT,DATCLU

C* CMH1/CMH1/ACDATE(2,MAXACD),CHAVEC(MAXCHN,MAXACC),NCHAN,NESUB,

1,SUBCAT(MAXSUB),SUPP(P,MAXS),CATKNT(MAXCAT),CATTH(MAXCAT),NPD,

2,NPDU,PTH,DATCAT(NDOTS),DATCLU(NDOTS)

C* INTEGER ADATES,SUNAR,ANALST,FLDDAY,DOTDAY,PDATE1,TDATE1

C* INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDM,GRIN

C* BYTE DEFLG,NOACQ,SEILGR,SEAL,ISTART,NTYPE1,ALP,ALP0

C* BYTE PCTCT,PCTCT2,VAR,VAR0,DLABEL,TYPE

C* CMH2/CMH2/ISEG,DEFLG,NOACQ,ADATES(2,MAXACD),SEILGR(MAXACD),

1,SUNEL(MAXACD),SUNAR(MAXACD),IPDATE(2),ANALST(5),FLDDAY(2),

2,DOTDAY(2),ISTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),

3,PDATE3(2),TDATE3(2),ACAT,CATNAM(MAXCAT),ALP(MAXCAT),ALP0,

4 PCTCT(MAXCAT),PCTCT2,VAR(MAXCAT),VAR0

C* INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,

1,UFLAG4

C* INTEGER PFLAG,DSKNT

C* CMH3/CMH3/EFLAG,DSKNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1

1,UFLAG2,UFLAG3,UFLAG4,EFLAG(MAXSUB)

C* INTEGER TX1,TY1,TX2,TY2,ACDISP,G,E,DTHIND,DETARY,GMIN,GMAX,FUL

C* INTEGER SP,IND,CLAMP,CLUMND

C* CMH4/CMH4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I11(4),G(4),

1,I(4),IND,IND(5),PART(5),SP,IND(5),2SPND,INDIND(4),NUMDET,

2,DETARY(NDOTS),GMIN,GMAX,FUL(2,2),CLAMP(8),CLUMND(8)

C* CMH5/CMH5/DISKID,ACDATE(NDOTS),GRIN(NDOTS),DLABEL(NDOTS),

1,TYPE(NDOTS),4,CLAP

C* CMH6/CMH6/FILNA(15),FILTY(23),K,JULID

LX1(10),LX2(20)

100 FORMAT(20A1)

101 FORMAT(1H0,'A DELETE FLAG FOR THIS SEGMENT HAS NOT BEEN SET')

102 FORMAT(1H5,'YOU WISH TO (S)ET THE DELETE FLAG NOW? >')

103 FORMAT(12)

104 FORMAT(1H0,'YOU MUST SET A DELETE FLAG AT THIS TIME')

105 FORMAT(1H5,'INPUT ACQUISITION NUMBER TO BE DELETED >')

106 FORMAT(1H0,'ACQUISITION NUMBER IS OUTSIDE LEGAL RANGE')

107 FORMAT(1H0,'15X,11,1,1,1,213')

110 FORMAT(1H0,'THE ACQUISITION DATES ELIGIBLE FOR DELETION ARE:')

IF(DEFLG .GE. 1 .AND. DEFLG .LE. 6) RETURN

IF(MAXACD .LE. 3) RETURN

IF(MAXACC .LE. 5) GOTO 12

TYPE 106

GOTO 13

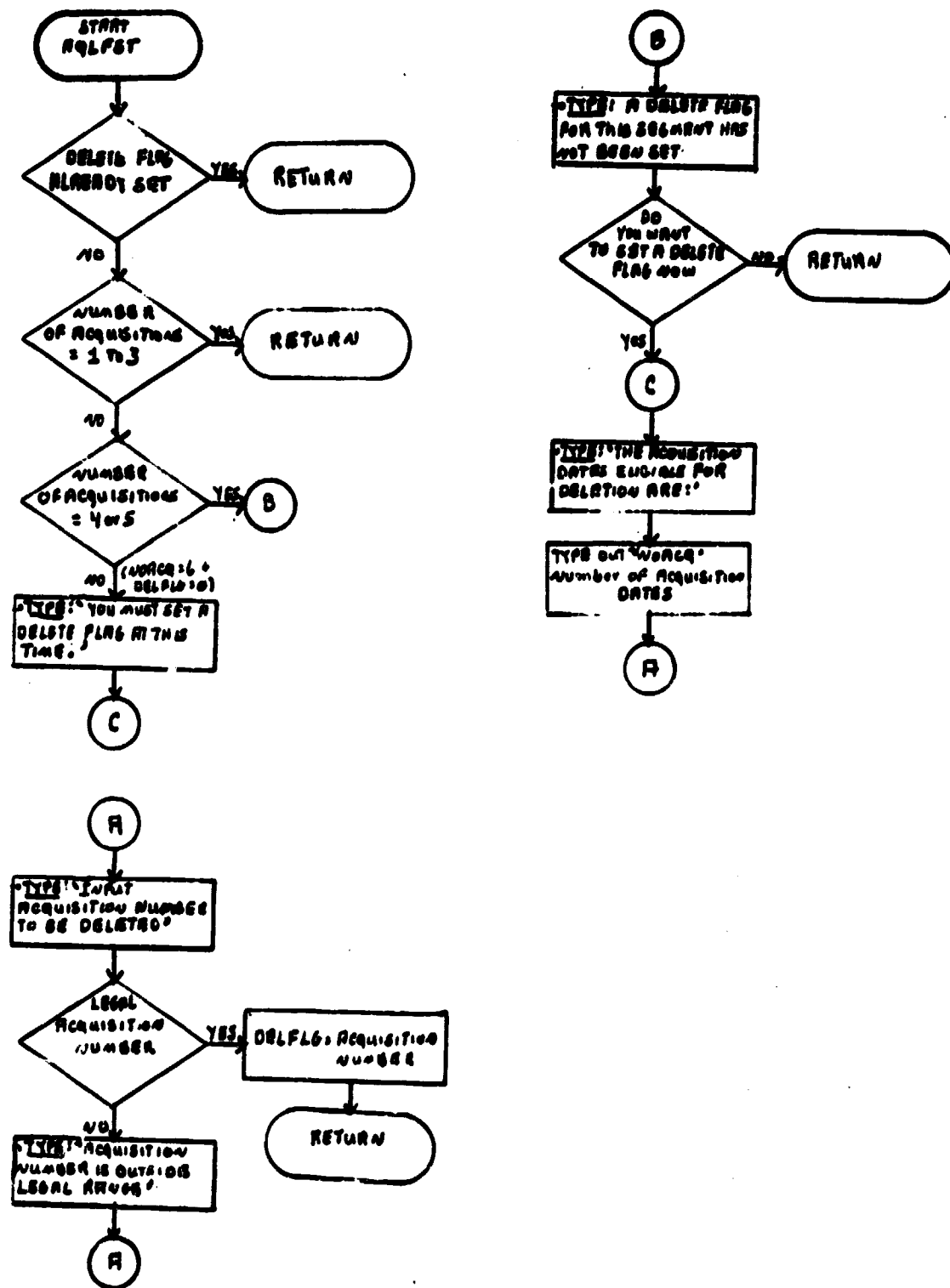
TYPE 107

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PRMUPD.FTV /TRIAL BLOCKS/NR
0040 ACCEPT 105,CONT
0041 IF(CONT.GE.1 .AND. CONT.LE.6) GO TO 10
0042 TYPE 108
0043 GO TO 9
0044 12 TYPE 103
0045 TYPE 104
0046 ACCEPT 102,W
0047 CALL FRNT(W,20)
0048 IF(W(1).NE.'S') RETURN
0049 13 TYPE 110
0050 DO 11 J=1,NBACC
0051 TYPE 109,L(ADATES(I,J),191,2)
0052 11 CONTINUE
0053 GO TO 9
0054 10 DELFL3=CONT
0055 RETURN
0056 END

21.1 SUBROUTINE AQLFST



21.2 SUBROUTINE JULIAN

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PRMUPD.FTN

/TR1BLOCKS/WR

```

0001 SUBROUTINE JULIAN(YR,M0,DY,JUL10)
0002 IMPLICIT INTEGER (A=2)
0003 DIMENSION C0NTAB(12)
0004 C0NTAB(1)=0
0005 C0NTAB(2)=31
0006 C0NTAB(3)=60
0007 C0NTAB(4)=91
0008 C0NTAB(5)=121
0009 C0NTAB(6)=152
0010 C0NTAB(7)=182
0011 C0NTAB(8)=213
0012 C0NTAB(9)=244
0013 C0NTAB(10)=274
0014 C0NTAB(11)=305
0015 C0NTAB(12)=335
0016 JUL10=C0NTAB(M0)+DY
0017 XX=YR+1900
0018 YY=XX-((XX/4)+4)
0019 IF(YY.GT.0) JUL10=JUL10-1
0020 RETURN
0021 END

```

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21.2 SUBROUTINE JULIAN

A flow chart for this subroutine is not available.

21.3 SUBROUTINE DOTSAV

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FORTRAN IV-PLUS V02-04      12156100      29-AUG-77      PAGE 13
PRMUPD.FTY      /TR18LOCKS/WR

0001      SUBROUTINE DOTSAV
0002      IMPLICIT INTEGER (A-W)
0003      INCLUDE 'SYIC(300,3)CAMSCOMON.INC'
0004      INCLUDE 'SYIC(300,3)CAMSPARAM.INC'
0005      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=50
      1,MAXV=11,NDOTS=209,DLSKIP=10,DSSKIP=10,MAXACD=6,MAXACC=4,
      2,NOSPWD=6,NODTWD=10
0006      EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,TX1),(C5,DISKID)
0007      INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)
      C*
0008      INTEGER ACDATE,SUBCAT,SUBPOP,CATKNT,CATTH
0009      BYTE CHNVEC,NCHAN,NOSUB,DOTCAT,DOTCLU
0010      COMMON/COM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NCHAN,NOSUB,
      1SUBCAT(MAXSUB),SUBPOP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NODT,
      2NODU,NOTH,DOTCAT(NDOTS),DOTCLU(NDOTS)
      C*
0011      INTEGER ADATES,SUNAZ,ANALST,FLODAY,DOTDAY,PDATE1,TDATE1
0012      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDOM,GRID
0013      BYTE DELFLG,NACQ,SFILGR,SUNEL,ASTART,NTYPE1,ALP,ALP0
0014      BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE
0015      COMMON/COM2/ISEG,DELFLG,NACQ,ADATES(2,MAXACD),SFILGR(MAXACD),
      1SUNEL(MAXACD),SUNAZ(MAXACD),IMDATE(2),ANALST(5),FLODAY(2),
      2DOTDAY(2),ASTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
      3PDATE3(2),TDATE3(2),ASTAT,CATNAM(MAXCAT),ALP(MAXCAT),ALP0,
      4PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0
      C*
0016      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
      1UFLAG4
0017      INTEGER PFLAG,OSKMNT
0018      COMMON/COM3/PFLAG,OSKMNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,
      1UFLAG2,UFLAG3,UFLAG4,NEWLAB(MAXSUB)
      C*
0019      INTEGER TX1,TY1,TX2,TY2,ACDISP,G,B,DWIND,DOTARY,GMIN,GMAX,FUL
0020      INTEGER SPRIND,CLAWND,CLUWID
0021      COMMON/COM4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I11(4),G(4),
      1B(4),DT,IND(5,NODTND),SPRIND(5,NOSPWD),IMWIND(4),NUMDOT,
      2DOTARY(NDOTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWID(8)
0022      COMMON/COM5/DISKID,RANDOM(NDOTS),GRID(NDOTS),DLABEL(NDOTS),
      1TYPE(NDOTS),PEFLC0
0023      COMMON/LOCAL/FILNAM(15),FILTYP(23),K,JULID
0024      LOGICAL*1 RUFF1(52),W(20)
0025      51 FORMAT(1H0,'*** ',2I4,2I2,/,6(4I3,2I4))
0026      51 FORMAT(1H0,'THE CURRENT NUMBER OF STARTING VECTORS IS ',I3)
0027      52 FORMAT(1H5,'DO YOU WISH TO (M)ODIFY THIS VALUE? >')
0028      53 FORMAT(1H5,'INPUT NEW STARTING VECTOR VALUE >')
0029      54 FORMAT(I4)
0030      54 FORMAT(20A1)
0031      54 FORMAT(1H0,'STARTING VECTOR VALUE IS OUT OF RANGE')
0032      101 FORMAT(1H0,'FILE ',14A2,' DID NOT TRANSFER SUCCESSFULLY')
0033      OPEN(UNIT=1,NAME='SYIC(300,3)DOTS.TMP',ACCESS='DIRECT',
      * TYPE='OLD',MAXREC=NDOTS,READONLY,RECORDSIZE=13)
      RECV=1
0034      CALL SUBSTR(FILTYP,1,3,FILNAM,24,3)
0035      CALL SUBSTR(FILTYP,37,5,FILNAM,18,5)
0036      OPEN(UNIT=7,NAME=FILNAM,ACCESS='DIRECT',MAXREC=NDOTS,
      * RECORDSIZE=13,TYPE='UNKNOWN')

```


FORTRAN IV-PLUS V02-04
PRMUPD.FTN /TR18L0CKS/HR

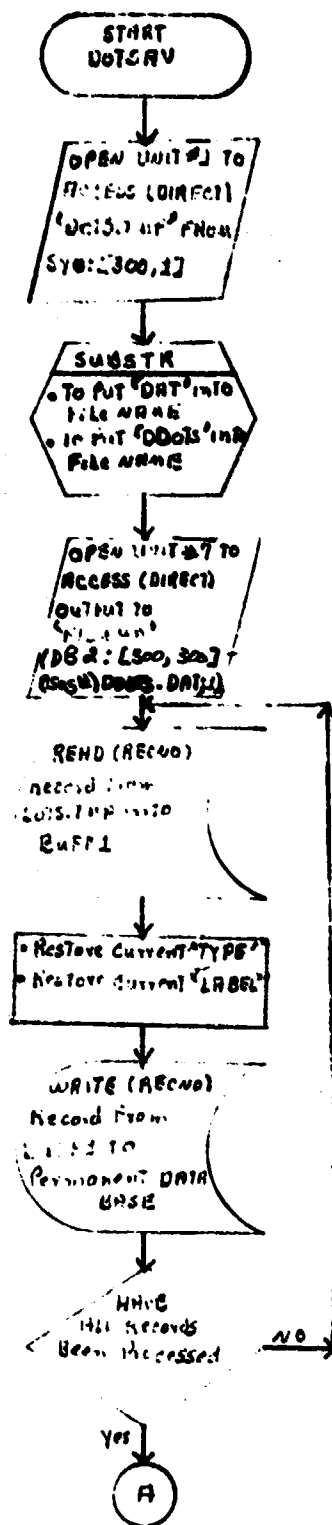
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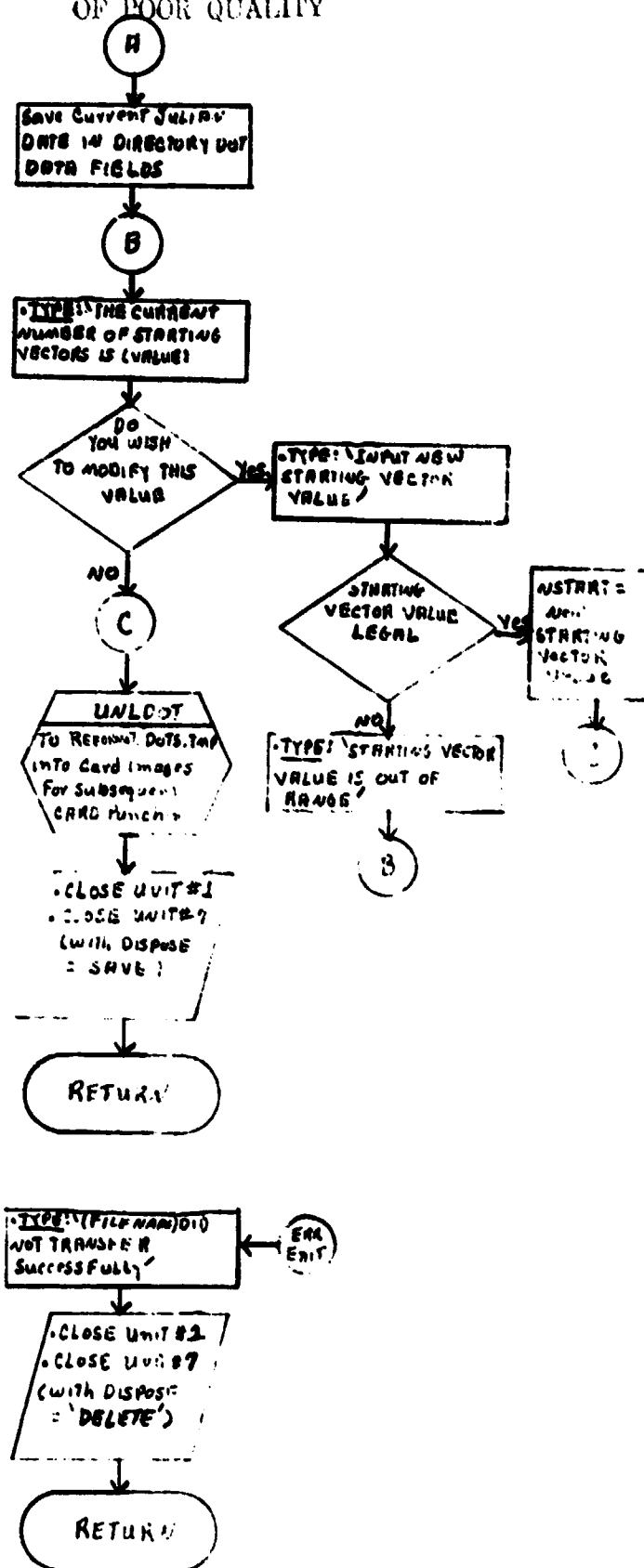
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```
0038      FIND (1,RECNO)
0039      1 READ(1,RECNO) BUFF1
0040      BUFF1(3)=TYPE(RECNO)
0041      BUFF1(4)=DLABEL(RECNO)
0042      WRITE (7,RECNO,ERR=99) BUFF1
0043      IF(RECNO.GT. 208) GO TO 2
0044      RECNO=RECNO+1
0045      GO TO 1
0046      2 DSTDAY(1)=K
0047      DSTDAY(2)=JULI0
0048      3 TYPE 51,NSTART
0049      TYPE 52
0050      ACCEPT 55,W
0051      CALL FRONT(W,20)
0052      IF(W(1) .NE. 'M') GO TO 5
0053      TYPE 53
0054      ACCEPT 54,C0NT
0055      IF(C0NT .GE. 210 .OR. C0NT .LE. 0) GO TO 4
0056      NSTART = C0NT
0057      GO TO 5
0058      4 TYPE 56
0059      GO TO 3
0060      5 CALL UNLD0T
0061      CL0SE(UNIT=1)
0062      CL0SE(UNIT=7,DISPOSE='SAVE')
0063      RETURN
0064      90 WRITE(10,100) (FILNAM(P),P=1,14)
0065      CL0SE(UNIT=1)
0066      CL0SE(UNIT=7,DISPOSE='DELETE')
0067      RETURN
0068      END
```


21.3 SUBROUTINE DOTSAV



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21.4 SUBROUTINE FLDSAV

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FORTRAN IV-PLUS V02-04      12156110      29-AUG-77      PAGE 17
PRMUPD.FTN      /TR,310CKS/HR
0001      SUBROUTINE FLDSAV
0002      IMPLICIT INTEGER (A-H)
0003      INCLUDE 'SYIC(300,3)CAMSCOMON.INC'
0004      INCLUDE 'SYIC(300,3)CAMSPARAM.INC'
0005      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=50
      1,MAXV=11,NDBTS=209,DISKIP=10,DSSKIP=10,MAXACD=6,MAXACC=4,
      2,NOSPWD=6,NDBTWD=10
0006      EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,IX1),(C5,DISKID)
0007      INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)
      C*
0008      INTEGER ACDATE,SUBCAT,SUBPZP,CATKNT,CATTH
0009      BYTE CHNVEC,NBCHAN,NOSUB,DTCAT,DOTCLU
0010      COMMON/COM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NBCHAN,NOSUB,
      1SUBCAT(MAXSUB),SUBPZP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),NDBP,
      2NDBU,NDBTH,DTCAT(NDBTS),DOTCLU(NDBTS)
      C*
0011      INTEGER ADATES,SUNAZ,ANALST,FLDDAY,DOTDAY,PDATE1,TDATE1
0012      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDON,GRID
0013      BYTE DELFLG,NBACC,SKILGR,SUNFL,NSTART,NTYPE1,ALP,ALPB
0014      BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE
0015      COMMON/COM2/ISEG,DEFLG,NBACC,ADATES(2,MAXACD),SKILGR(MAXACD),
      1SUNFL(MAXACD),SUNAZ(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),
      2DOTDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
      3PDATE3(2),TDATE3(2),NOCAT,CATNAM(MAXCAT),ALP(MAXCAT),ALPB,
      4      PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0
      C*
0016      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
      1UFLAG4
0017      INTEGER PFLAG,DSKMNT
0018      COMMON/COM3/PFLAG,DSKMNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1
      1,UFLAG2,UFLAG3,UFLAG4,NELAB(MAXSUB)
      C*
0019      INTEGER TX1,TY1,TX2,TY2,ACDISP,G,E,DTWIND,DOTARY,GMIN,GMAX,FUL
0020      INTEGER SPWIND,CLAWND,CLUWND
0021      COMMON/COM4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I11(4),G(4),
      1B(4),DTWIND(5,NDBTWD),SPWIND(5,NOSPWD),INWIND(4),NUMDOT,
      2DOTARY(NDBTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)
0022      COMMON/COM5/DISKID,RANDON(NDBTS),GRID(NDBTS),DLABEL(NDBTS),
      1TYPE(NDBTS),RECL70
0023      COMMON/LOCAL/FILNAM(15),FILTYP(23),K,JULI0
0024      DIMENSION BUFX(15)
0025      100 FORMAT(1H0,' FILE ',14A2,' DID NOT TRANSFER SUCCESSFULLY')
0026      OPEN(UNIT=1,NAME='SYIC(300,3)FLDS.TMP',ACCESS='SEQUENTIAL',
      * TYPE='OLD',MAXREC=MAXFLD,READONLY,FORML='UNFORMATTED')
0027      CALL SUBSTR(FILTYP,1,3,FILNAM,24,3)
0028      CALL SUBSTR(FILTYP,42,5,FILNAM,18,5)
0029      OPEN(UNIT=7,NAME=FILNAM,ACCESS='SEQUENTIAL',TYPE='UNKNOWN',
      * MAXREC=MAXFLD,FORML='UNFORMATTED')
0030      READ (1,ERR=99) NFLD
0031      IF(NFLD.EQ.0) GO TO 6
0032      WRITE (7,ERR=99) NFLD
0033      DO 10 I=1,NFLD
0034      READ (1) BUFX
0035      WRITE (7,ERR=99) BUFX
0036      10 CONTINUE
0037      FLDDAY(1)=K

```


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FORTRAN IV-PLUS V02-04
PRMUPD.FTN /TR19LOCKS/WR

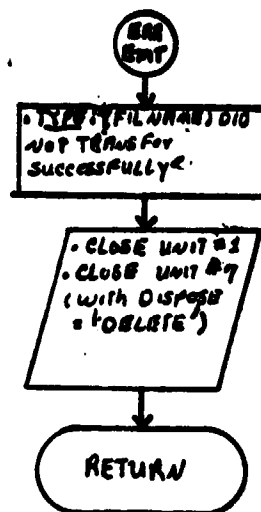
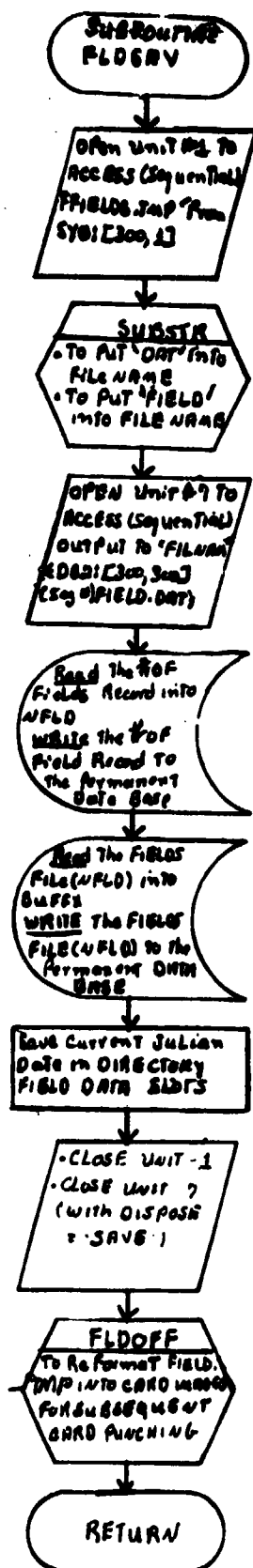
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```
0038      FLDDAY(2)= JUL10
0039      CLOSE(UNIT=1)
0040      CLOSE(UNIT=7,DISPOSE='SAVE')
0041      CALL FLDOFF
0042      RETURN
0043  99      WRITE(10,100) (FILNAM(P),P=1,14)
0044      CLOSE(UNIT=1)
0045      CLOSE(UNIT=7,DISPOSE='DELETE')
0046      RETURN
0047  6      CLOSE(UNIT=1)
0048      CLOSE(UNIT=7,DISPOSE='DELETE')
0049      FLDDAY(1)=0
0050      FLDDAY(2)=0
0051      RETURN
0052      END
```


21.4 SUBROUTINE FLDSAV



21.5 SUBROUTINE CLASAV

FORTRAN IV-PLUS V02-04

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PRMUPD.FIN /TRIBLOCKS/WR

```

0001 SUBROUTINE CLASAV
0002 IMPLICIT INTEGER (A-H)
0003 INCLUDE 'SYI(300,3)CAMSCOMMON.INC'
0004 * INCLUDE 'SYI(300,3)CAMSPARAM.INC'
0005 * PARAMETER MAXCAT=60, MAXSUB=60, MAXCHN=4, NPIX=196, NLIN=117, MAXFLD=50
    * 1, MAXV=11, NDOTS=209, DLSKIP=10, DSSKIP=10, MAXACD=6, MAXACC=4,
    * 2, NDSUB=6, NDDTWD=10
0006 * EQUIVALENCE (C1,ACDATE), (C2,ISEG), (C3,PFLAG), (C4,IX1), (C5,DISKID)
0007 * INTEGER C1(469), C2(256), C3(71), C4(348), C5(629)
    *
0008 * Co
0009 * INTEGER ACDATE, SUBCAT, SUBP, CATKNT, CATTH
0010 * BYTE CHNVEC, NDSUB, NDSUB, D2TCAT, D2TCLU
    * COMMON/COM1/ACDATE(2, MAXACC), CHNVEC(MAXCHN, MAXACC), NDSUB,
    * 1, SUBCAT(MAXSUB), SUBP(MAXSUB), CATKNT(MAXCAT), CATTH(MAXCAT), NDSUB,
    * 2, NDSUB, NDSUB, D2TCAT(NDSUB), D2TCLU(NDSUB)
    *
0011 * Co
0012 * INTEGER ADATES, SUNA7, ANALST, FLDDAY, D2TDAY, PDATE1, TDATE1
0013 * INTEGER PDATE2, TDATE2, PDATE3, TDATE3, CATNAM, DISKID, RANDOM, GRID
0014 * BYTE DELFLG, NDSUB, SKILGR, SUNEL, NSTART, NTYPE1, ALP, ALP0
0015 * BYTE PCTCT, PCTCT0, VAR, VAR0, DLABEL, TYPE
    * COMMON/COM2/ISEG, DELFLG, NDSUB, ADATES(2, MAXACC), SKILGR(MAXACC),
    * 1, SUNEL(MAXACC), SUNA7(MAXACC), IMPDATE(2), ANALST(5), FLDDAY(2),
    * 2, D2TDAY(2), NSTART, NTYPE1, PDATE1(2), TDATE1(2), PDATE2(2), TDATE2(2),
    * 3, PDATE3(2), TDATE3(2), NDSUB, CATNAM(MAXCAT), ALP(MAXCAT), ALP0,
    * 4
    * PCTCT(MAXCAT), PCTCT0, VAR(MAXCAT), VAR0
    *
0016 * Co
0017 * INTEGER EFLAG1, EFLAG2, EFLAG3, EFLAG4, EFLAG5, UFLAG1, UFLAG2, UFLAG3,
0018 * 1, UFLAG4
0019 * INTEGER PFLAG, DSKMNT
    * COMMON/COM3/PFLAG, DSKMNT, EFLAG1, EFLAG2, EFLAG3, EFLAG4, EFLAG5, UFLAG1,
    * 1, UFLAG2, UFLAG3, UFLAG4, NEWLAB(MAXSLB)
    *
0020 * Co
0021 * INTEGER TX1, TY1, TX2, TY2, ACDISP, G, E, DTWIND, D2TARY, GMIN, GMAX, FUL
0022 * INTEGER SP, IND, CLAYND, CLUWIND
    * COMMON/COM4/TX1, TY1, TX2, TY2, IX1, IY1, IX2, IY2, ACDISP(2), I1(4), G(4),
    * 1, I2(4), DTWIND(5, NDSUB), SP, IND(5, NDSUB), IMWIND(4), NUMD2T,
    * 2, D2TARY(NDSUB), GMIN, GMAX, FUL(2, 7), CLAYND(8), CLUWIND(4)
0023 * COMMON/COM5/DISKID, RANDOM(NDSUB), GRID(NDSUB), DLABEL(NDSUB),
0024 * 1, TYPE(NDSUB), RECL7C
    * COMMON/LOCAL/FILNAM(15), FILTYP(23), K, JULIO
0025 * LOGICAL*1 BUFF1(196)
0026 * 100 FORMAT(1H0, ' FILE 1, 1542, ' DID NOT TRANSFER SUCCESSFULLY')
    * OPEN(UNIT=1, NAME='SYI(300,1)CLUSTERMP.TMP', ACCESS='DIRECT',
    * * TYPE='OLD', MAXREC=NLIN, READONLY, RECORDSIZE=49)
    * RECN=1
0027 * CALL SUBSTR(FILTYP, 4, 3, FILNAM, 24, 3)
0028 * CALL SUBSTR(FILTYP, 17, 5, FILNAM, 18, 5)
0029 * OPEN(UNIT=7, NAME=FILNAM, ACCESS='DIRECT', TYPE='UNKNOWN',
    * * MAXREC=NLIN, RECORDSIZE=49)
0030 *
0031 * IF(PFLAG, EQ, 1) GO TO 2
0032 * FIND (1, RECN)
0033 * 1 READ (1, RECN) BUFF1
0034 * WRITE (7, RECN, ERR=99) BUFF1
0035 * IF(RECN, GT, 116) GO TO 6
0036 * RECN=RECN+1
0037 * GO TO 1

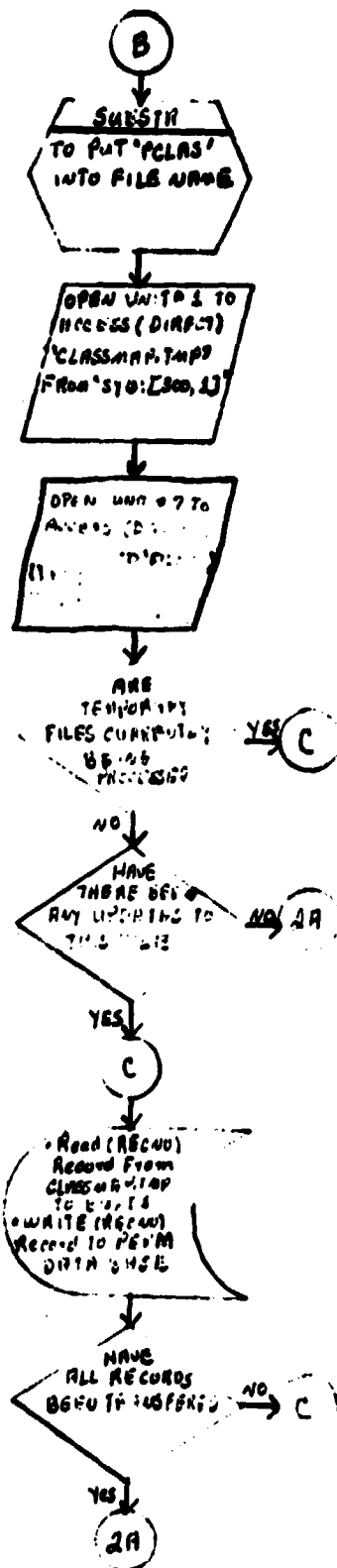
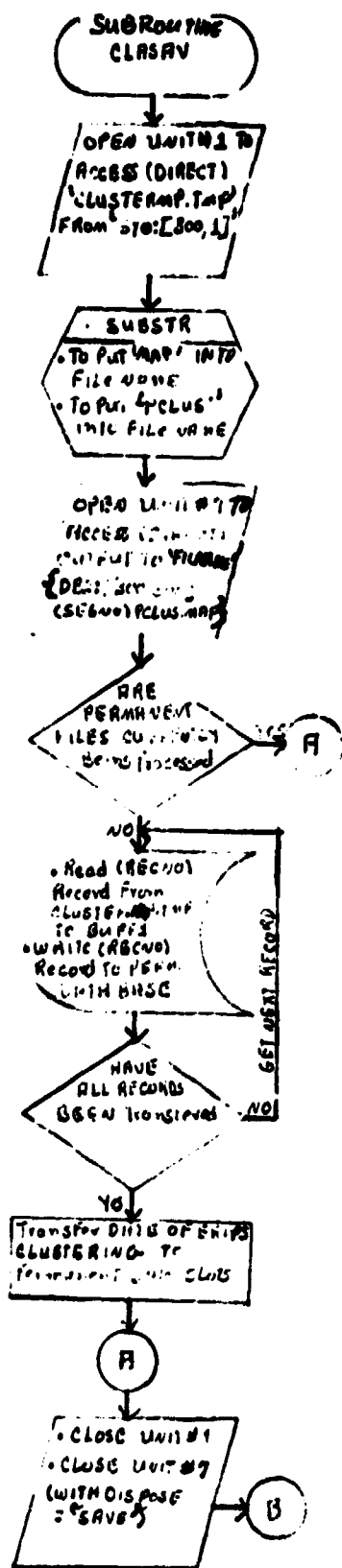
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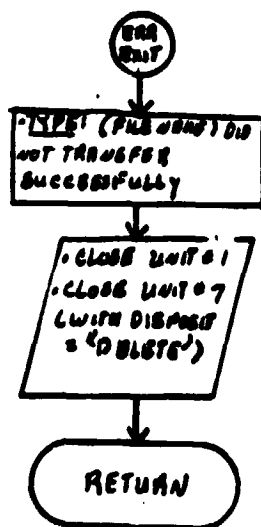
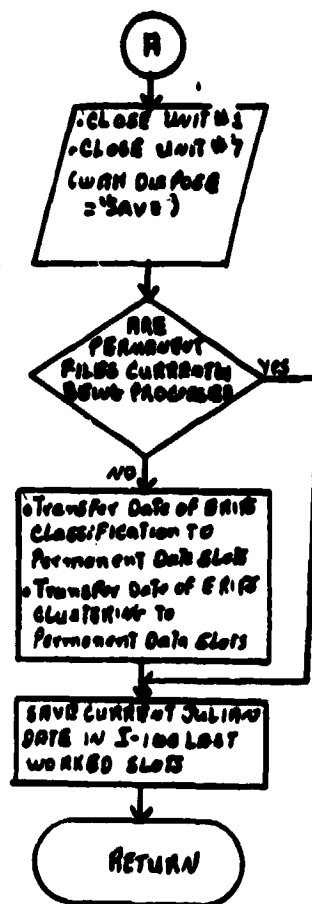
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PRMUPD.FTN /TR:BLOCKS/WR

```
0038      6 PDATE2(1)=TDATE2(1)
0039      PDATE2(2)=TDATE2(2)
0040      2 CLOSE(UNIT=1)
0041      CLOSE(UNIT=7,DISPOSE='SAVE')
0042      CALL SUBSTR(FILTYP,7,5,FILNAM,10,5)
0043      OPEN(UNIT=1,NAME='SYOIC300.13CLASSMAP.TMP',ACCESS='DIRECT',
    * TYPE='OLD',MAXRECONLIN,READONLY,RECORDSIZE=49)
0044      OPEN(UNIT=7,NAME=FILNAM,ACCESS='DIRECT',TYPE='NEW',
    * MAXRECONLIN,RECORDSIZE=49)
0045      RECNO=1
0046      FIND (1,RECNO)
0047      IF(PFLAG.EQ.0) GO TO 3
0048      IF(UFLAG1.NE.1) GO TO 4
0049      3 READ (1,RECNO) BUFF1
0050      WRITE(7,RECNO,ERR=09) BUFF1
0051      IF(RECNO.GT.116) GO TO 4
0052      RECNO=RECNO+1
0053      GO TO 3
0054      4 CLOSE (UNIT=1)
0055      CLOSE(UNIT=7,DISPOSE='SAVE')
0056      IF(PFLAG.EQ.1) GO TO 5
0057      PDATE1(1)=TDATE1(1)
0058      PDATE1(2)=TDATE1(2)
0059      PDATE2(1)=TDATE2(1)
0060      PDATE2(2)=TDATE2(2)
0061      5 IMDATE(1)=M
0062      IMDATE(2)=JULI7
0063      RETURN
0064      99 WRITE(10,100) (FILNAM(P),P=1,14)
0065      CLOSE (UNIT=1)
0066      CLOSE(UNIT=7,DISPOSE='DELETE')
0067      RETURN
0068      END
```


21.5 SUBROUTINE CLASAV





21.6 SUBROUTINE STASAV

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```

FORTRAN IV-PLUS V02-04      12156130      79-AUG-77      PAGE 29
PRMUPD.FTN      /TRIPLOCKS/WH
0001      SUBROUTINE STASAV
0002      IMPLICIT INTEGER (*=*)
0003      INCLUDE 'SYIC300,3JCANSCHRN.INC'
0004      INCLUDE 'SYIC300,3JCASPARAM.INC'
0005      PARAMETER MAXCAT=60, MAXSUR=60, MAXCHN=4, NP1X=196, NLIN=117, MAXFLD=50,
      1, MAXV=11, NDPTS=209, ILSKIP=10, DSSKIP=10, MAXACH=6, MAXACC=4,
      2, N2SPND=6, N2DT=10
0006      EQUIVALENCE (C1,ACDATE), (C2,ISEG), (C3,PFLAG), (C4,IX1), (C5,DISKID)
0007      INTEGER C1(449), C2(254), C3(71), C4(348), C5(629)
      *
0008      INTEGER ACDATE, SURCAT, SURPRP, CATKNT, CATTH
0009      BYTE CHAVEC, NCHVAL, POSUB, DTCAT, D2TCU
0010      COMMON /COM1/ACDATE(2,MAXACC), CHAVEC(MAXCHN,MAXACC), NCHVAL, N2SUR,
      1,SURCAT(MAXSUR), SURPRP(MAXSUR), CATKNT(MAXCAT), CATTH(MAXCAT), N2D2,
      2,N2D0, D2TH, D2TCAT(NDPTS), D2TCU(NDPTS)
      *
0011      INTEGER ADATES, SURAZ, ANALST, FLDDAY, D2DAY, PDATE1, TDATE1
0012      INTEGER PDATE2, TDATE2, PDATE3, TDATE3, CATNAM, DISKID, RANDRM, GRID
0013      BYTE DELFLG, REAGC, S2ILGR, SUNEL, NSTART, NTYPE1, ALP, ALP0
0014      BYTE D2TCT, P2CT1, VAR, VAR0, DLABEL, TYPE
0015      COMMON /COM2/ISFG, DELFLG, REAGC, ADATES(2,MAXACC), S2ILGR(MAXACC),
      1,SUNEL(MAXACC), SURAZ(MAXACC), IMDATE(2), ANALST(5), FLDDAY(2),
      2,D2DAY(2), NSTART, NTYPE1, PDATE1(2), TDATE1(2), PDATE2(2), TDATE2(2),
      3,PDATE3(2), TDATE3(2), CAT, CATNAM(MAXCAT), ALP(MAXCAT), ALP0,
      4      D2TCT(MAXCAT), P2CT2, VAR(MAXCAT), VAR0
      *
0016      INTEGER EFLAG1, EFLAG2, EFLAG3, EFLAG4, EFLAG5, UFLAG1, UFLAG2, UFLAG3,
      1,UFLAG4
0017      INTEGER PFLAG, DISKID
0018      COMMON /COM3/PFLAG, DISKID, EFLAG1, EFLAG2, EFLAG3, EFLAG4, EFLAG5, UFLAG1,
      1,UFLAG2, UFLAG3, UFLAG4, REFLAG(MAXSUR)
      *
0019      INTEGER TX1, TY1, TX2, TY2, ACDISP, G, B, DTWIND, D2TARY, GMIN, GMAX, FUL
0020      INTEGER SPIND, CLAM, CLUW
0021      COMMON /COM4/TX1, TY1, TX2, TY2, IX1, IY1, IX2, IY2, ACDISP(2), ILL(4), G(4),
      1B(4), DTWIND(5,NDPTS), SPIND(5,2SPND), INWIND(4), NUMD2T,
      2,D2TARY(NDPTS), GMIN, GMAX, FUL(2,7), CLAMND(8), CLUWND(8)
0022      COMMON /COM5/DISKID, RANDRM(NDPTS), GRID(NDPTS), DLABEL(NDPTS),
      1,TYPE(NDPTS), RECLNG
0023      DIMENSION BUFF1(72)
0024      COMMON /LOCAL/FILNAM(15), FILTYP(23), K, JULIN
0025      100 FORMAT(1H0, ' FILE ', 14A2, ' DID NOT TRANSFER SUCCESSFULLY')
0026      CALL ERRSET(39, .TRUE., .FALSE., .TRUE., .FALSE., 10)
0027      CALL SUBST(FILTYP, 1, 3, FILNAM, 29, 3)
0028      CALL SUBST(FILTYP, 27, 5, FILNAM, 18, 5)
0029      OPEN(UNIT=1, NAME='SYIC300,1JCLUSTATS.TMP', ACCESS='DIRECT',
      1, TYPE='OLD', MAXREC=MAXCAT, RECL=ND2SIZE*36)
0030      OPEN(UNIT=7, NAME=FILNAM, ACCESS='SEQUENTIAL', TYPE='UNKNOWN',
      1, FORM='UNFORMATTED')
      *
0031      IF(PFLAG.EQ. 0) GOTO 3
0032      IF(UFLAG4.NE. 1) GOTO 2
0033      3 WRITE(7,ERR=99) C1
0034      RECN=1
0035      FIND(1,RECN)
0036      1 READ(1,RECN) BUFF1
0037      WRITE(7,ERR=99) BUFF1

```



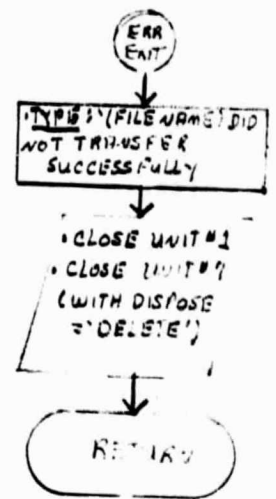
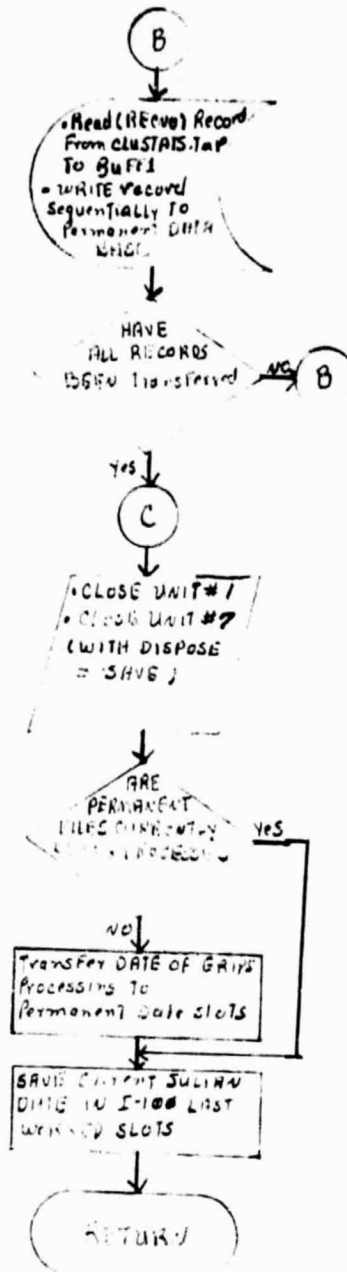
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PRMUPD,FTN      /TR10LOCKS/HR
0038      IF(RECNO .GT. NDCAT) GO TO 2
0039      RECNO=RECNO+1
0040      GO TO 1
0041      2      CLOSE(UNIT=1)
0042      CLOSE(UNIT=7,DISPOSE='SAVE')
0043      IF(PFLAG .EQ. 1) GO TO 5
0044      PDATE3(1)=TDATE3(1)
0045      PDATE3(2)=TDATE3(2)
0046      5      INDATE(1)=K
0047      INDATE(2)=JUL17
0048      RETURN
0049      99      WRITE(10,100) (FILNAM(I),P=1,14)
0050      CLOSE(UNIT=1)
0051      CLOSE(UNIT=7,DISPOSE='DELETE')
0052      RETURN
0053      END

```


21.6 SUBROUTINE STASAV

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21.7 SUBROUTINE SUBSTR

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PRMUPD.FTN

/TR:BLOCKS/WR

0001 SUBROUTINE SUBSTR(A,I,N,B,J,M)

C MOVE A TO B

0002 IMPLICIT INTEGER (A=2)

0003 LOGICAL*1 A(1),B(1)

0004 DATA BLANK/2H /

0005 IS=1

0006 JS=J

0007 L=0

0008 IF(N.EQ.0) GO TO 20

0009 L=N

0010 IF(L.GT.M) L=M

0011 DO 10 K=1,L

0012 B(JS)=A(IS)

0013 IS=IS+1

0014 JS=JS+1

0015 1) CONTINUE

0016 IF(N.GE.M) RETURN

0017 2) L=L+1

0018 DO 30 K=L,M

0019 B(JS)=BLANK

0020 JS=JS+1

0021 3) CONTINUE

0022 RETURN

0023 END

31-24

350

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21.7 SUBROUTINE SUBSTR

A flow chart for this subroutine is not available.

21.8 SUBROUTINE RPTGEN

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PRMUPD.FTN

/TR191LOCKS/WR

```

0001 SUBROUTINE RPTGEN(SEGN0,I,J,K,FILTP,A)
0002 IMPLICIT INTEGER (A=I)
0003 INCLUDE 'SYIC300.3JCAMSCOMON.INC'
0004 INCLUDE 'SYIC300.3JCAMSPARAM.INC'
0005 *
0005 * PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NP1X=196,NLIN=117,MAXFLD=50
0005 * 1,MAXV=11,NDOTS=209,DISKIP=10,DSSKIP=10,MAXACD=6,MAXACC=4,
0005 * 2N0SPWD=6,N0DTH0=10
0006 * EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,IX1),(C5,DISKID)
0007 * INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)
0007 *
0008 * C*
0008 * INTEGER ACDATE,SUBCAT,SUBPOP,CATKNT,CATTH
0009 * BYTE CHNVEC,N0CHAN,N0SUB,D0TCAT,D0TCLU
0010 * COMMON/C0M1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),N0CHAN,N0SUB,
0010 * 1SUBCAT(MAXSUB),SUBPOP(MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),N0D0,
0010 * 2N0DU,N0TH,D0TCAT(NDOTS),D0TCLU(NDOTS)
0010 *
0010 * C*
0011 * INTEGER ADATES,SUNAZ,ANALST,FLDDAY,D0TDAY,PDATE1,TDATE1
0012 * INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RAND0M,GRID
0013 * BYTE DELFLG,N0ACQ,S0ILGR,SUNEL,ASTART,N0TYPE1,ALP,ALP0
0014 * BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE
0015 * COMMON/C0M2/ISEG,DELFLG,N0ACQ,ADATES(2,MAXACD),S0ILGR(MAXACD),
0015 * 1SUNEL(MAXACD),SUNAZ(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),
0015 * 2D0TDAY(2),NSTART,N0TYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
0015 * 3PDATE3(2),TDATE3(2),N2CAT,CATNAM(MAXCAT),ALP(MAXCAT),ALP0,
0015 * 4 PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0
0015 *
0015 * C*
0016 * INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
0016 * 1UFLAG4
0017 * INTEGER PFLAG,DSKMNT
0018 * COMMON/C0M3/PFLAG,DSKMNT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1
0018 * 1,UFLAG2,UFLAG3,UFLAG4,NEWLAG(MAXSUB)
0018 *
0018 * C*
0019 * INTEGER TX1,TY1,IX2,TY2,ACDISP,G,B,D0THIND,D0TARY,GMIN,GMAX,FUL
0020 * INTEGER SPWIND,CLAWND,CLUWND
0021 * COMMON/C0M4/TX1,TY1,IX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I11(4),G(4),
0021 * 1B(4),D0THIND(5,N0DTH0),SPWIND(5,N0SPWD),IMWIND(4),NUMD0T,
0021 * 2D0TARY(NDOTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)
0022 * COMMON/C0M5/DISKID,RAND0M(NDOTS),GRID(NDOTS),DLABEL(NDOTS),
0022 * 1TYPE(NDOTS),RECL7C
0023 * DIMENSION FILEID(7),A(4),SEGN0(2)
0024 * DATA FILEID/2H ,2H ,2H ,2H ,2H ,2HDA,2HT /
0025 * 100 FORMAT(1H1,40X,'CAMS 1-100 DATA BASE TRANSACTION REPORT')
0026 * 101 FORMAT(1H0,103X,'DATE ',I2,'/',I2,'/',I2)
0027 * 102 FORMAT(1H0,103X,'TIME ',4A2)
0028 * 103 FORMAT(1H0,4X,'SEGMENT NUMBER = ',2A2)
0029 * 104 FORMAT(1H0,4X,'DISK PACK NUMBER = ',I4)
0030 * 105 FORMAT(1H0,45X,'FILES',8X,'TYPE',4X,'ERIPS',3X,'PERM')
0031 * 106 FORMAT(1H0,44X,'UPDATED',7X,'DATE',4X,'DATE',4X,'DATE')
0032 * 107 FORMAT(1H0,41X,7A2,2(3X,'*****'),3X,I2,I3)
0033 * 108 FORMAT(1H0,41X,7A2,3(3X,I2,I3))
0034 * 112 FORMAT(1H0,37X,'PERMANENT DATA BASE UPDATE/VERSION ',
0034 * *'MAY 31,1977')
0035 * 113 FORMAT(1H0,' ')
0036 * WRITE(10,100)
0037 * WRITE(10,101) I,J,K
0038 * WRITE(10,102) (A(P),P=1,4)

```

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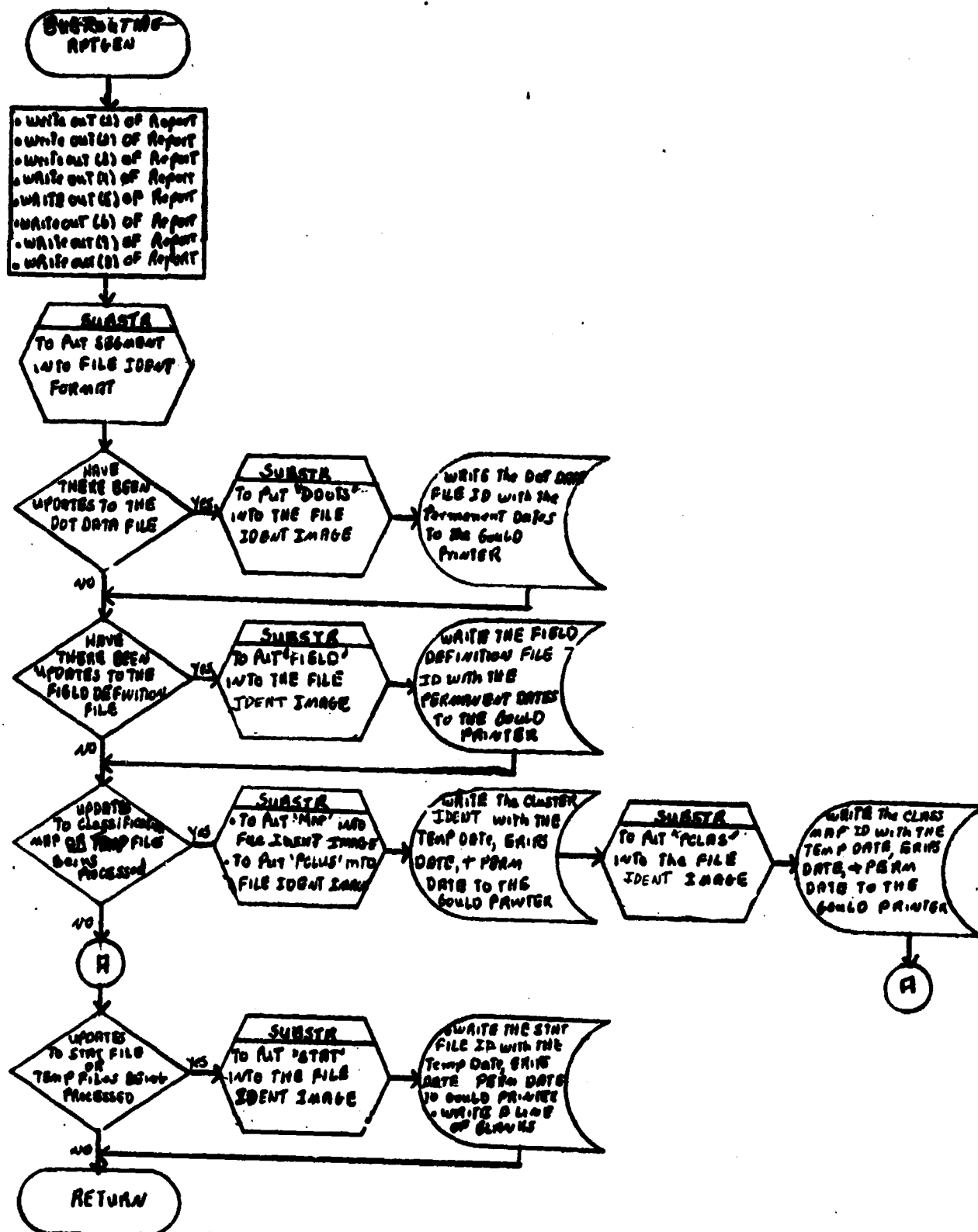
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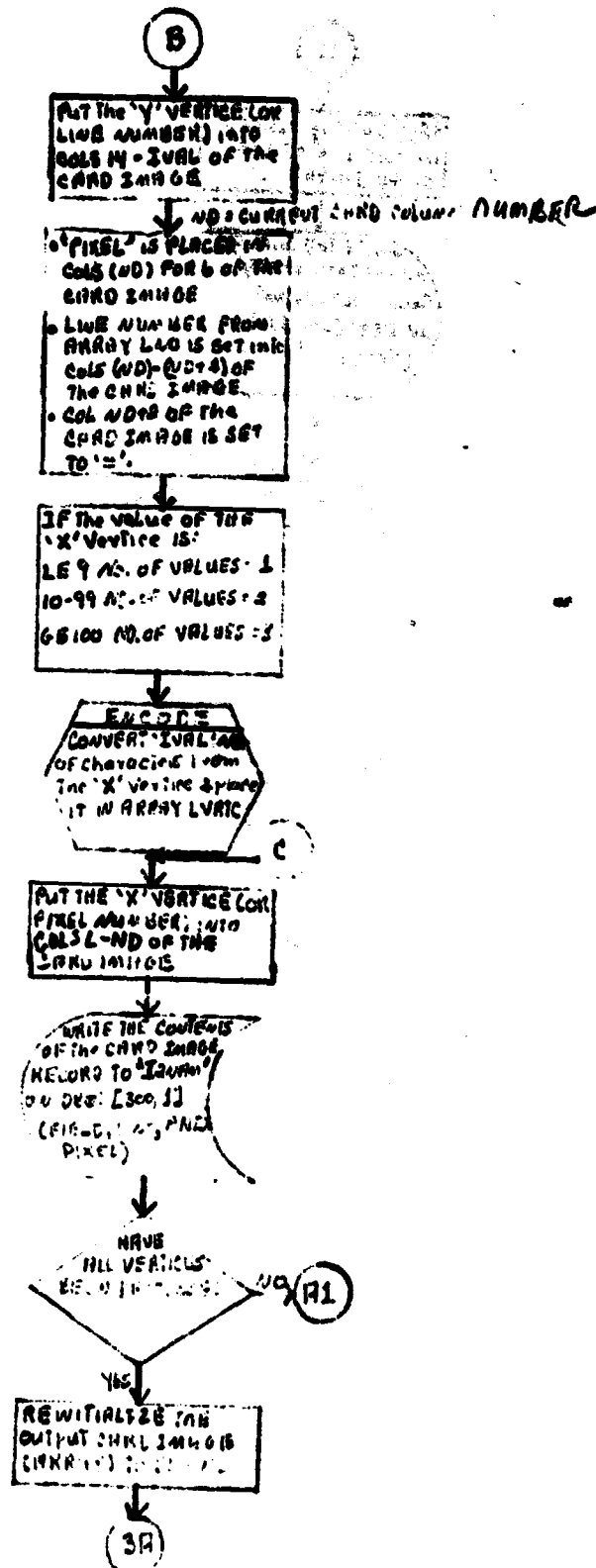
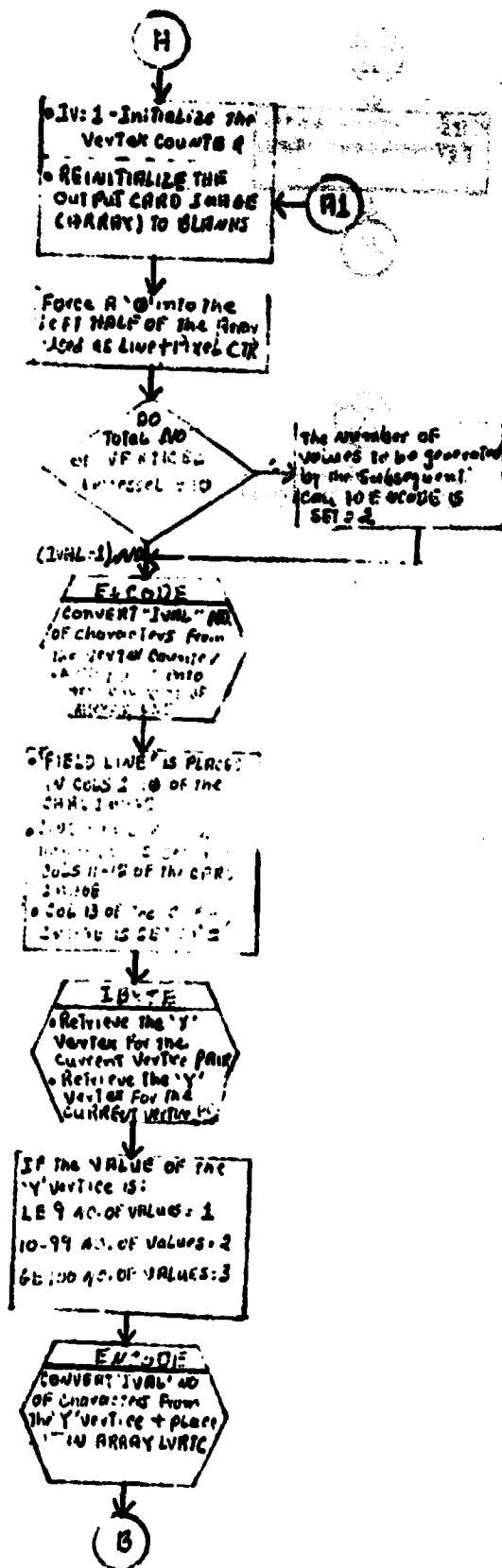

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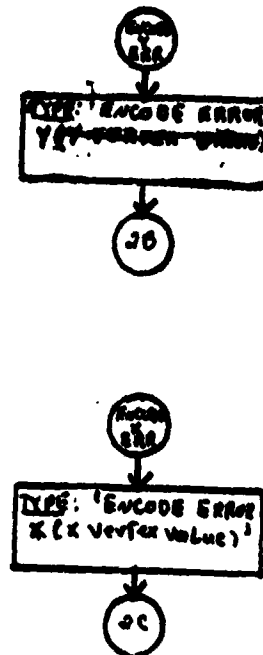
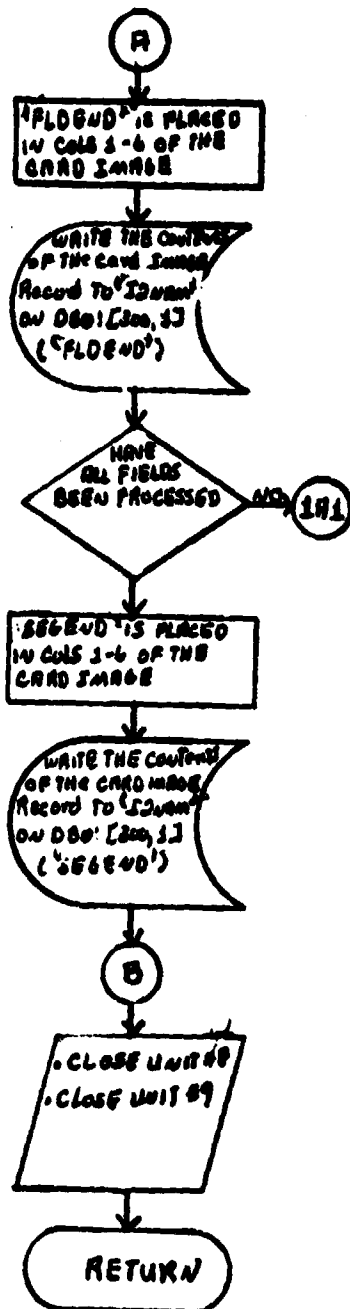
FORTRAN IV-PLUS V02-04      12156142      29-AUG-77      PAGE 32
PRMUPD,FTN      /TR,BLOCKS/WR
0039      WRITE(10,112)
0040      WRITE(10,103) (SEGNU(P),P=1,2)
0041      WRITE(10,104) DISKID
0042      WRITE(10,105)
0043      WRITE(10,106)
0044      CALL SUBSTR(SEGNU,1,4,FILEID,1,4)
0045      IF (UFLAG3 .NE. 1) GO TO 10
0046      CALL SUBSTR(FILTYP,37,5,FILEID,5,5)
0047      WRITE(10,107) (FILEID(P),P=1,7),DDTDAY(1),DDTDAY(2)
0048  10 IF (UFLAG2 .NE. 1) GO TO 20
0049      CALL SUBSTR(FILTYP,42,5,FILEID,5,5)
0050      WRITE(10,107) (FILEID(P),P=1,7),FLDDAY(1),FLDDAY(2)
0051  20 IF (UFLAG1 .EQ. 0 .AND. PFLAG .EQ. 1) GO TO 30
0052      IF (EFLAG1.EQ.0.AND.EFLAG2.EQ.0)GO TO 30
0053      CALL SUBSTR(FILTYP,4,3,FILEID,11,3)
0054      CALL SUBSTR(FILTYP,17,5,FILEID,5,5)
0055      WRITE(10,108) (FILEID(P),P=1,7),TDATE2(1),TDATE2(2),
      * PDATE2(1),PDATE2(2),IMDATE(1),IMDATE(2)
0056      CALL SUBSTR(FILTYP,7,5,FILEID,5,5)
0057      WRITE(10,108) (FILEID(P),P=1,7),TDATE1(1),TDATE1(2),
      * PDATE1(1),PDATE1(2),IMDATE(1),IMDATE(2)
0058  30 IF (UFLAG4 .EQ. 0 .AND. PFLAG .EQ. 1) GO TO 40
0059      IF (EFLAG5.EQ.0)GO TO 40
0060      CALL SUBSTR(FILTYP,27,5,FILEID,5,5)
0061      WRITE(10,108)(FILEID(P),P=1,7),TDATE3(1),TDATE3(2),
      * PDATE3(1),PDATE3(2),IMDATE(1),IMDATE(2)
0062  40 CONTINUE
0063      WRITE(10,113)
0064      RETURN
0065      END

```


21.8 SUBROUTINE RPTGEN







21.9 SUBROUTINE UNLDOT

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12157110

29-AUG-77

PAGE 1

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D0T3FF,FTN      /TRIBLOCKS/WR
0001      SUBROUTINE UNLDOT
0002      IMPLICIT INTEGER(A=2)
0003      INCLUDE 'SYIC300,13CAMSCOMON,INC'
0004      INCLUDE 'SYIC300,13CAMSPARAM,INC'
0005      PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=50
      1,MAXV=11,NDOTS=209,DLSKIP=10,DSSKIP=10,MAXACD=6,MAXACC=4,
      2N0SPWD=6,N0DTND=10
0006      EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,TX1),(C5,DISKID)
0007      INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)
      C
0009      INTEGER ACDATE,SUBCAT,SUBP,P,CATKNT,CATTH
0009      BYTE CHNVEC,N0CHAN,N0SUB,D0TCAT,D0TCLU
0010      COMMON/COM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),N0CHAN,N0SUB,
      1SUBCAT(MAXSUB),SUBP(P,MAXSUB),CATKNT(MAXCAT),CATTH(MAXCAT),N0D0,
      2N0DU,N0TH,D0TCAT(NDOTS),D0TCLU(NDOTS)
      C
0011      INTEGER ADATES,SUNAZ,ANALST,FLDDAY,D0TDAY,PDATE1,TDATE1
0012      INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RAND0H,GRID
0013      BYTE D0FLG,N0ACD,S0ILGR,SUNEL,NSTART,NTYPE1,ALP,ALP0
0014      BYTE PCTCT,PCTCT0,VAR,VAR0,DLABEL,TYPE
0015      COMMON/COM2/ISEG,D0FLG,N0ACD,ADATES(2,MAXACD),S0ILGR(MAXACD),
      1SUNEL(MAXACD),SUNAZ(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),
      2D0TDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),
      3PDATE3(2),TDATE3(2),N0CAT,CATNAM(MAXCAT),ALP(MAXCAT),ALP0,
      4PCTCT(MAXCAT),PCTCT0,VAR(MAXCAT),VAR0
      C
0016      INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,
      1UFLAG4
0017      INTEGER PFLAG,PSKMT
0018      COMMON/COM3/PFLAG,PSKMT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,
      1UFLAG2,UFLAG3,UFLAG4,NEWLAB(MAXSUB)
      C
0019      INTEGER TX1,TY1,TX2,TY2,ACDISP,G,B,DTWIND,D0TARY,GMIN,GMAX,FUL
0020      INTEGER SPWIND,CLAWND,CLUWND
0021      COMMON/COM4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I11(4),G(4),
      1B(4),DTWIND(5),N0DTC,SPWIND(5),N0SPWD,IMWIND(4),NUHD0T,
      2D0TARY(NDOTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)
0022      COMMON/COM5/DISKID,RAND0H(NDOTS),GRID(NDOTS),DLABEL(NDOTS),
      1TYPE(NDOTS),PECLPC
0023      LOGICAL*1 CARD(80)
0024      DIMENSION D0THUF(3,NDOTS),SEGNUM(2),SEGNA(5),START(4)
0025      INTEGER*4 D0T
0026      DATA BLANK/2H /
0027      DATA D0T/1D0T /
0028      DATA SEGNA/2HSE,2HGM,2HEN,2HT ,2H /
0029      DATA START/2HST,2HAR,2HT ,2H /
      C
0030      IF(N0CAT,LE. 0) RETURN
0031      OPEN(UNIT=3,NAME='SYIC300,13D0TCARD,DAT',TYPE='NEW')
0032      CALL SUBSTR(SEGNA,1,9,CARD,1,9) ISEGMENT NAME
0033      ENCODE(4,5,SEGNUM) ISEG
0034      FORMAT(14)
0035      CALL SUBSTR(SEGNUM,1,4,CARD,10,80) ISEGMENT NUMBER
0036      CARD(15)='C'
0037      WRITE(3,10) CARD

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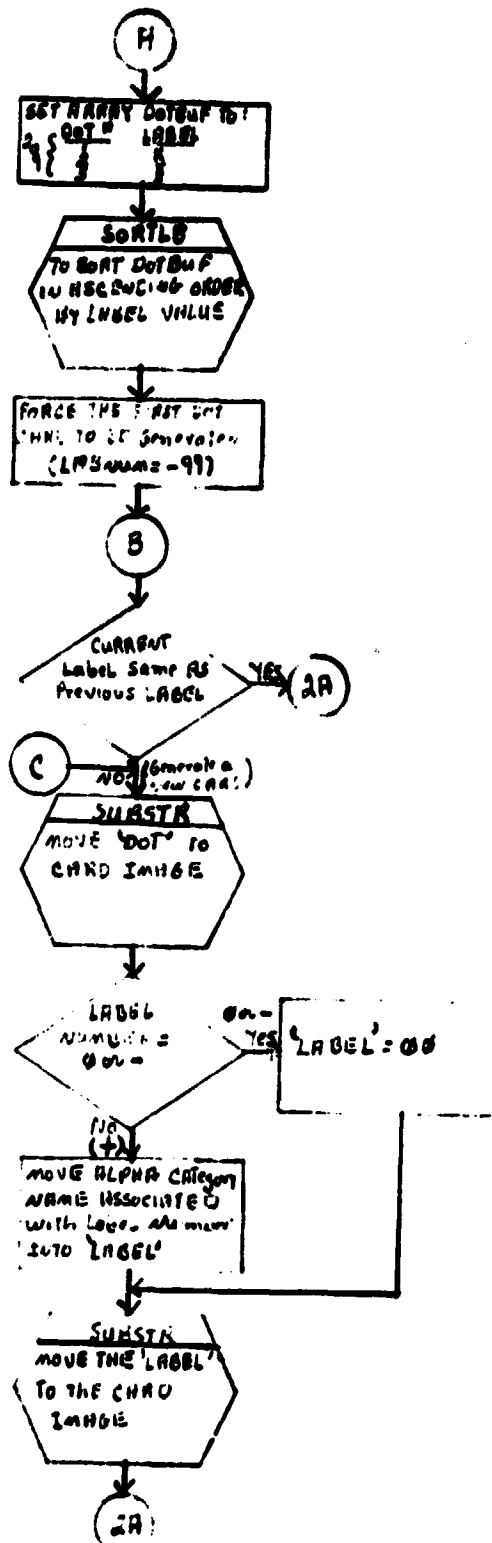
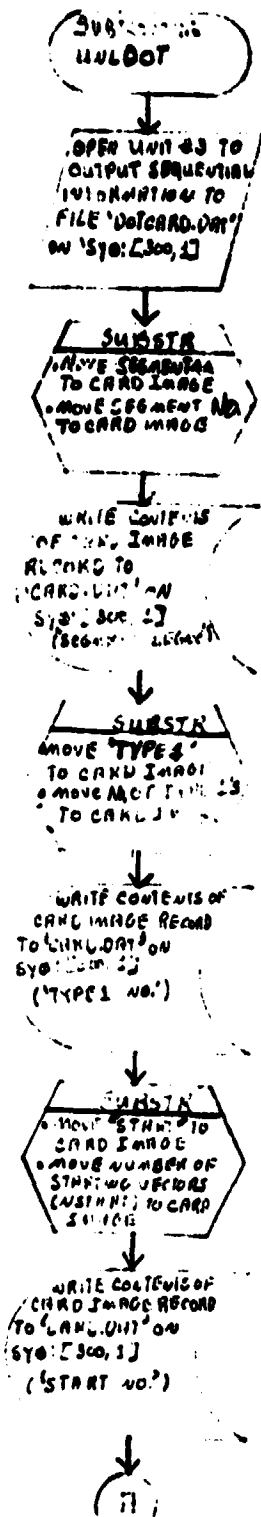


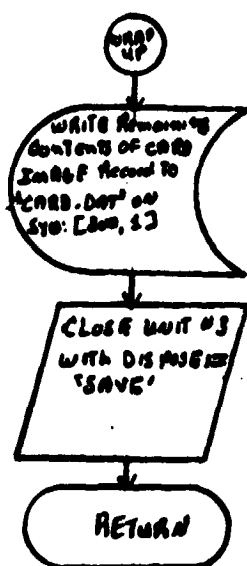
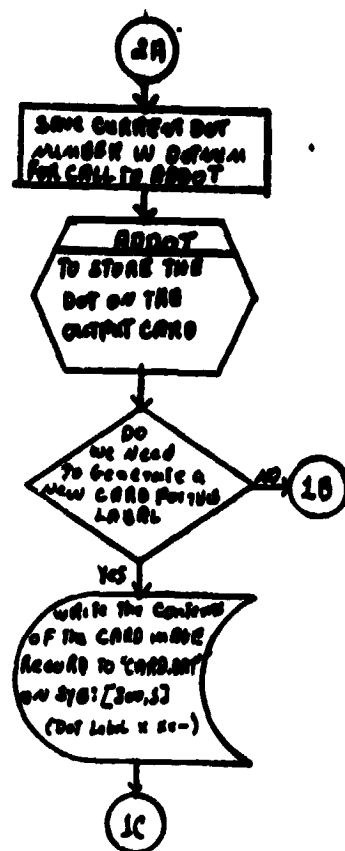
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DOTOFF,FTN /TR:BLOCKS/WR
0038 10 FORMAT(80A1)
0039 20 FORMAT(12)
0040 CALL SUBSTR(START,1,8,CARD,1,8) ISTART NAME
0041 ENCODE(2,20,TEMP,NSTART ISTART VALUE
0042 CALL SUBSTR(TEMP,1,2,CARD,9,80)
0043 WRITE(3,10) CARD
0044 K=0
0045 DO 40 ITYPE=1,2
0046 DO 40 LABNUM=1,NOCAT
0047 CALL DZTSEL(ITYPE,LABNUM,=128,=128,FLAG)
0048 IF(NUMDOT.EQ.0)GO TO 40
0049 DO 35 J=1,NUMDOT
0050 K=K+1
0051 DOTNUM=DOTARY(J)
0052 DOTBUF(1,K)=DOTNUM
0053 DOTBUF(2,K)=LABNUM
0054 DOTBUF(3,K)=ITYPE
0055 35 CONTINUE
0056 40 CONTINUE
0057 TDOTS=K
0058 LABNUM=-99
0059 DO 100 N=1,TDOTS
0060 IF(DOTBUF(2,N).EQ.LABNUM)GO TO 70
0061 IF(N.EQ.1)GO TO 51 !FIRST PASS THRU LOOP
C THIS PATH GENERATES ANOTHER DOT CARD
0062 50 WRITE(3,10) CARD
0063 51 J=10
0064 K=0
0065 CALL SUBSTR(DOT,1,4,CARD,1,80) ISTORE 4 CHARACTER WORD 'DOT '
0066 LABNUM=DOTBUF(2,N)
0067 ITYPE=DOTBUF(3,N)
0068 IF(LABNUM) 52,52,55
0069 52 LABEL=BLANK
0070 GO TO 65
0071 55 LABEL=CATNAM(LABNUM)
0072 65 CALL SUBSTR(LABEL,1,1,CARD,8,1) ISTORE LABEL
0073 ENCODE(1,66,CARD(5)) ITYPE ISTORE TYPE
0074 66 FORMAT(11)
0075 70 DOTNUM=DOTBUF(1,N)
0076 CALL ADDDOT(DOTNUM,CARD,K,J) ISTORE DOT ON CARD
0077 IF(K.EQ.1)GO TO 50
0078 100 CONTINUE
0079 WRITE(3,10) CARD
0080 CLOSE(UNIT=3,DISPOSE='SAVE')
0081 RETURN
0082 END

```


21.9 SUBROUTINE UNLDOT





21.10 SUBROUTINE ADDDOT

FORTRAN IV-PLUS V02-04

12157125

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DETOFF.FTN

/TR1810CK8/HR

0001 SUBROUTINE ADDDOT(DOTNUM,CARD,K,J)

0002 IMPLICIT INTEGER(A-Z)

0003 LOGICAL*1 CARD(80)

0004 IF(DOTNUM .LT. 10) GO TO 20

0005 IF(DOTNUM .LT. 100)GO TO 40

0006 IF(J+2 .LE. 80)GO TO 10

0007 5 K=1

0008 RETURN

0009 10 ENCODE(3,15,CARD(J)) DOTNUM

0010 15 FORMAT(13)

0011 J=J+4

0012 RETURN

0013 20 IF(J .GT. 80) GO TO 5

0014 ENCODE(1,30,CARD(J)) DOTNUM

0015 30 FORMAT(11)

0016 J=J+2

0017 RETURN

0018 40 IF(J+1 .GT. 80)GO TO 5

0019 ENCODE(2,50,CARD(J)) DOTNUM

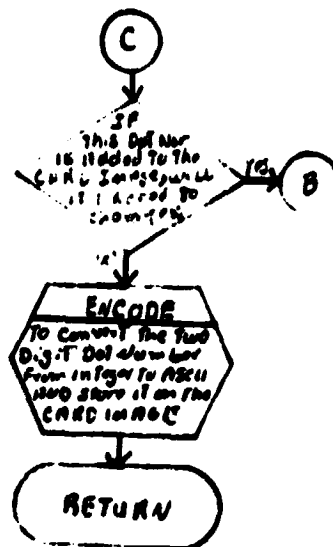
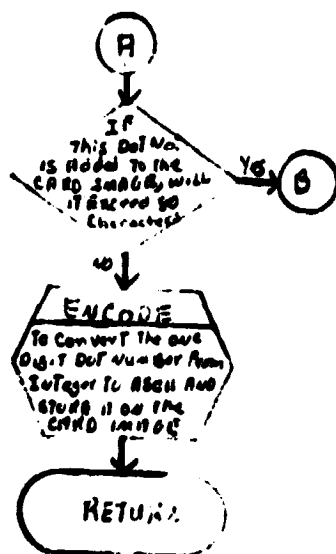
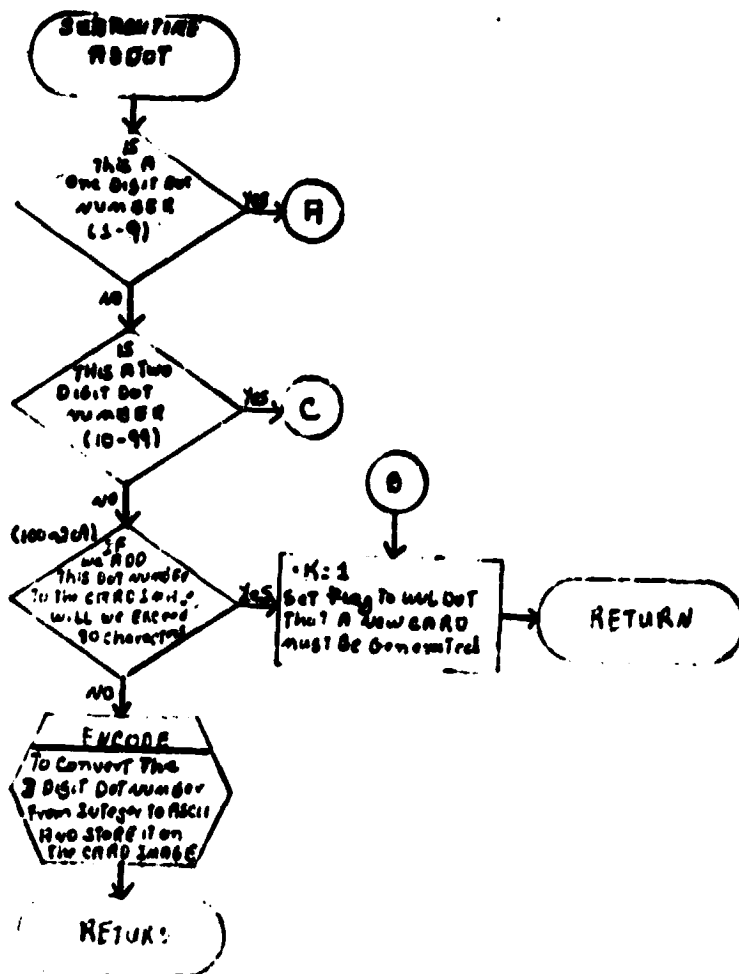
0020 50 FORMAT(12)

0021 J=J+3

0022 RETURN

0023 END

21.10 SUBROUTINE ADDDOT



21.11 SUBROUTINE FLDOFF

HFTRAN IV-PLUS V02.04

12157144

29-AUG-77

PAGE 1

FLDOFF.FTN

/TRIPLOCKS/MR

0001

SUBROUTINE FLDOFF

CCC

C

C

C

C

CCC

READ FIELD FILE FOR SEGMENT IDSEQ AND
OFF-LOAD IT TO TAPE TO BE PUNCHED IN ERIPS FORMAT

0002

INCLUDE 'SYIC300,31CAMSCOMEN,INC'

0003 *

INCLUDE 'SYIC300,31CAMSPARAM,INC'

0004 *

PARAMETER MAXCAT=60,MAXSUB=60,MAXCHN=4,NPIX=196,NLIN=117,MAXFLD=50

1,MAXV=11,NDOTS=209,DISKIP=10,SSSKIP=10,MAXACD=6,MAXACC=4,

2,NOSPD=6,NPDW=10

0005 *

EQUIVALENCE (C1,ACDATE),(C2,ISEG),(C3,PFLAG),(C4,TX1),(C5,DISKID)

0006 *

INTEGER C1(469),C2(256),C3(71),C4(348),C5(629)

C *

0007 *

INTEGER ACDATE,SURCAT,SURP,CATKAT,CATTH

0008 *

BYTE CHNVEC,NCHAN,NOSUB,DOTCAT,DOTCLU

0009 *

COMMON/COM1/ACDATE(2,MAXACC),CHNVEC(MAXCHN,MAXACC),NCHAN,NOSUB,

1,SURCAT(MAXSUB),SURP(MAXSUB),CATKAT(MAXCAT),CATTH(MAXCAT),NODR,

2,NODU,NTH,DOTCAT(NDOTS),DOTCLU(NDOTS)

C *

0010 *

INTEGER ADATES,SUNAZ,ANALST,FLDDAY,DOTDAY,PDATE1,TDATE1

0011 *

INTEGER PDATE2,TDATE2,PDATE3,TDATE3,CATNAM,DISKID,RANDOM,GRID

0012 *

BYTE DELFLG,NACD,SILGR,SUNFL,NSTART,NTYPE1,ALP,ALP0

0013 *

BYTE PCTCT,PCTCT2,VAR,VAR0,DLABEL,TYPE

0014 *

COMMON/COM2/ISEG,DEFLG,NACD,ADATES(2,MAXACD),SILGR(MAXACD),

1,SUNFL(MAXACD),SUNAZ(MAXACD),IMDATE(2),ANALST(5),FLDDAY(2),

2,DOTDAY(2),NSTART,NTYPE1,PDATE1(2),TDATE1(2),PDATE2(2),TDATE2(2),

3,PDATE3(2),TDATE3(2),ACCAT,CATNAM(MAXCAT),ALP(MAXCAT),ALP0,

4 PCTCT(MAXCAT),PCTCT2,VAR(MAXCAT),VAR0

C *

0015 *

INTEGER EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1,UFLAG2,UFLAG3,

1,UFLAG4

0016 *

INTEGER PFLAG,DSKMT

0017 *

COMMON/COM3/PFLAG,DSKMT,EFLAG1,EFLAG2,EFLAG3,EFLAG4,EFLAG5,UFLAG1

1,UFLAG2,UFLAG3,UFLAG4,EFLAG5(MAXSUB)

C *

0018 *

INTEGER TX1,TY1,TX2,TY2,ACDISP,G,B,DTWIND,DOTARY,GMIN,GMAX,FUL

0019 *

INTEGER SPWIND,CLAWND,CLUWND

0020 *

COMMON/COM4/TX1,TY1,TX2,TY2,IX1,IY1,IX2,IY2,ACDISP(2),I1(4),G(4),

1,18(4),DTWIND(5,NPDW),SPWIND(5,NOSPD),IMWIND(4),NUMDOT,

2,DOTARY(NDOTS),GMIN,GMAX,FUL(2,7),CLAWND(8),CLUWND(8)

0021 *

COMMON/COM5/DISKID,RANDOM(NDOTS),GRID(NDOTS),DLABEL(NDOTS),

1,TYPE(NDOTS),RECL0

0022

PARAMETER NBD0U=1450

0023

PARAMETER NBD0UE=32

0024

COMMON /FLOC/ NFLD,L00DU(NBD0U)

0025

BYTE L00DU

0026

BYTE NAMEFIL(25)

0027

DIMENSION I2NAM(13)

0028

EQUIVALENCE (NAMEFIL(1),I2NAM(1))

0029

BYTE IZER0

0030

BYTE LC1(13),LC2(14),LC3(11),LC4(5),

1,LC5(10),LC6(6)

0031

BYTE LC7(6),LC8(4)

0032

BYTE ICARD(80),LRUF(4)

FLDDEF.FTN

/TP1BLOCKS/HR

```

0033      BYTE LAB,LD0,LDU,LEQ,LZER0,LN0(2),LVRTC(3)
0034      DATA IBLNK /1H /
0035      DATA LD0 /1HD/, LDU/1HU/,LEQ/1H0/,LZER0/1H0/
      C      LC1 = SEGMENT ID01
0036      DATA LC1/1HS,1HE,1HG,1HS,1HT,1HA,1HR,1HT,
      1 1H ,1HI,1HD,1HE,1HI/
      C      LC2 = FLDSTART NAME=
0037      DATA LC2 /1HF,1HL,1HD,1HS,1HT,1HA,1HR,1HT,
      1 1H ,1HN,1HA,1HM,1HE,1H0/
      C      LC3 = FIELD TYPE=
0038      DATA LC3 /1HF,1HI,1HE,1HL,1HD,1H ,1HT,1HY,
      1 1HP,1HE,1H0/
      C      LC4 = NAME=
0039      DATA LC4 /1HN,1HA,1HM,1HE,1H0/
      C      LC5 = FIELD LINE
0040      DATA LC5/1HF,1HI,1HE,1HL,1HD,
      1 1H ,1HL,1HI,1HN,1HE/
      C      LC6 = PIXEL
0041      DATA LC6/1H ,1HP,1HI,1HX,1HE,1HL/
      C      LC7 = FLDEND
0042      DATA LC7 /1HF,1HL,1HD,1HE,1HN,1HD/
      C      LC8 = SEGEN0
0043      DATA LC8 /1HS,1HE,1HG,1HE,1HN,1HD/
      C      FILE TO HOLD CARDS TO BE PUNCHED
0044      DATA IZER0 /0/
0045      DATA NAMFIL /1HD,1HB,1HD,1H1,1H6,1H3,
      1 1H0,1H0,1H0,1H1,1H3,1H1,1H2,1H3,1H4,1HF,
      2 1HL,1HD,1H0,1HF,1H ,1HD,1HA,1HT,0/
      IDSEG=ISEG
0046      LU3=0
0047      LU3=0
0048      OPEN (UNIT=LU3,NAME='DRO:[300,1]FIELDS.TMP',
      1 TYPE='OLD',FORM='UNFORMATTED',ACCESS='SEQUENTIAL')
      C      INITIALIZE CARD ARRAY TO FLANKS
0049      DO 10 I=1,90
0050      ICARD(I)=IBLNK
0051      10 CONTINUE
      C      READ D0/DU FILE
0052      CALL RDFLD (IDSEG,TERR,LU3)
0053      IF (TERR.EQ. 1) GO TO 500
      C      SEG START CARD
0054      DO 15 I=1,13
0055      ICARD(I)=LC1(I)
0056      15 CONTINUE
0057      ENCODE (4,1300,LBUF) IDSEG
0058      1300 FORMAT (I4)
0059      NAMFIL(12)=LBUF(1)
0060      NAMFIL(13)=LBUF(2)
0061      NAMFIL(14)=LBUF(3)
0062      NAMFIL(15)=LBUF(4)
0063      LOUT=9
0064      OPEN (UNIT=LOUT,NAME='2NAM,
      1 TYPE='NEW')
0065      ICARD(14)=LBUF(1)
0066      IF (ICARD(14).EQ.' ') ICARD(14)='0'
0067      ICARD(15)=LBUF(2)
0068      ICARD(16)=LBUF(3)

```


FLDOPF,FTN

/TRIRLOCK\$WR

```

0069      ICARD(17)=LBUF(4)
0070      WRITE (LOUT,1000) ICARD
0071      1000 FORMAT (80A1)
      C      INITIALIZE ICARD
0072      DO 18 I=1,80
0073      ICARD(I)=IBLNK
0074      18 CONTINUE
      C      FIELD COUNTER
0075      IFLD=1
0076      N=1
0077      20 CONTINUE
      C      NEL OF VERTICES
0078      NV=LORDU(N+7)-1
0079      LAB=LDB
0080      IF (LORDU(N+6).NEL.-1) LAB=LDB
      C      STORE ID
0081      DO 22 I=1,14
0082      ICARD(I)=LC2(I)
0083      22 CONTINUE
0084      K=N
0085      DO 24 I=15,20
0086      ICARD(I)=LORDU(K)
0087      K=K+1
0088      24 CONTINUE
0089      WRITE (LOUT,1000) ICARD
      C      INITIALIZE ICARD
0090      DO 26 I=1,80
0091      ICARD(I)=IBLNK
0092      26 CONTINUE
      C      FIELD TYPE
0093      DO 28 I=1,11
0094      ICARD(I)=LC3(I)
0095      28 CONTINUE
0096      ICARD(12)=LAB
0097      WRITE (LOUT,1000) ICARD
      C      INITIALIZE VERTEX COUNTER
0098      IV=1
0099      40 CONTINUE
0100      DO 30 I=1,80
0101      ICARD(I)=IBLNK
0102      30 CONTINUE
0103      LNR(1)=IREFD
0104      IVAL=1
0105      IF (IV.EQ. 10) IVAL=2
0106      K=3-IVAL
0107      ENCODE (IVAL,1040,LNR(K)) IV
0108      1040 FORMAT (I4VAL)
0109      DO 42 I=1,10
0110      ICARD(I)=LC5(I)
0111      42 CONTINUE
0112      ICARD(11)=LNR(1)
0113      ICARD(12)=LNR(2)
0114      ICARD(13)=LEO
      C      GET RANGE OF X AND Y VALUES
0115      INX=N+7+(IV-1)*2+1
0116      LI=ISYTE(0,LORDU(INX))

```

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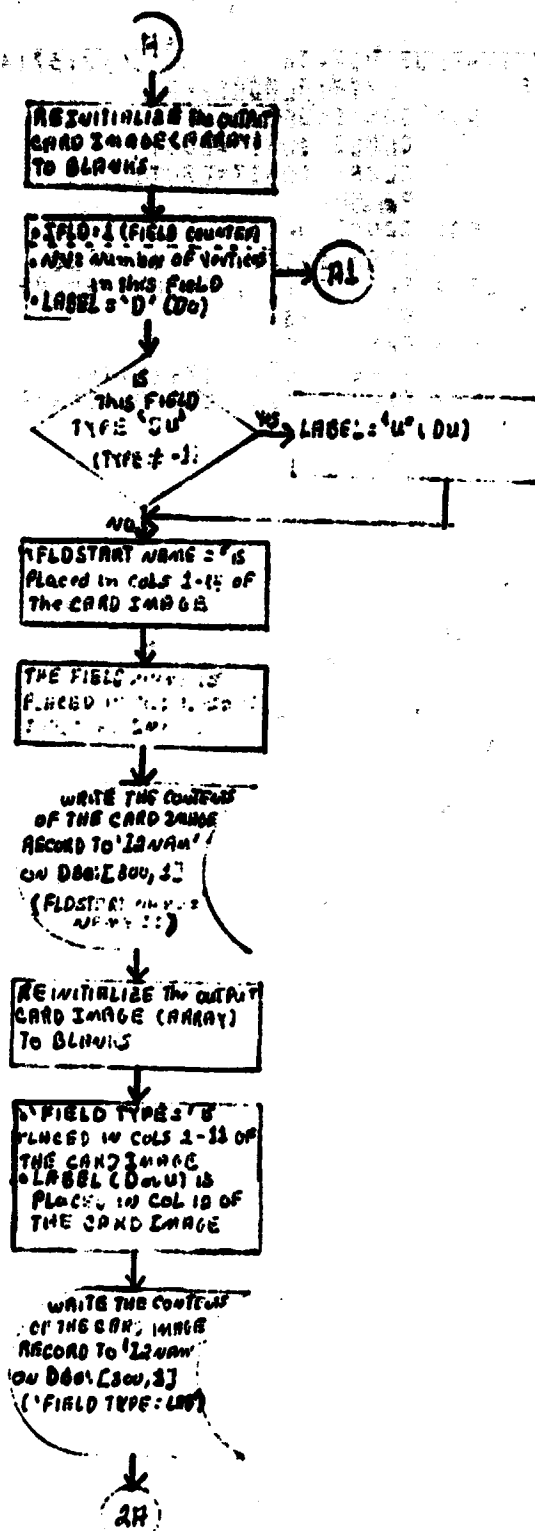
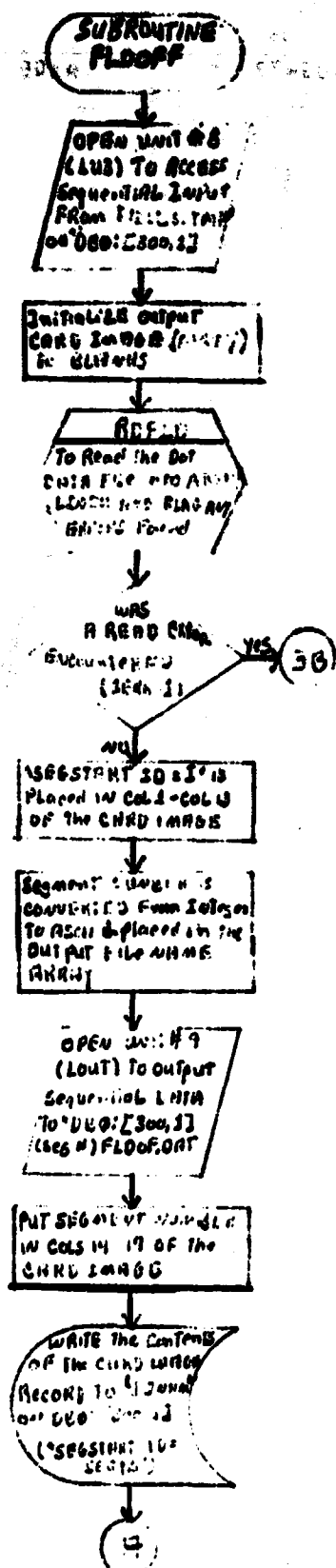
0117      IX=LI
0118      LI=IPYTE(0,LDORU(INX+1))
0119      IY=LI
0120      IVAL=1
0121      IF (IY .GT. 9) IVAL=2
0122      IF (IY .GT. 99) IVAL=3
0123      ENCODE (IVAL,1041,LVRTC,ERR=502) IY
0124      1041 FORMAT (I<IVAL>)
0125      43 CONTINUE
0126      K=1
0127      ND=IVAL+13
0128      DO 46 I=14,ND
0129      ICARD(I)=LVRTC(K)
0130      K=K+1
0131      46 CONTINUE
0132      DO 48 I=1,6
0133      ND=ND+1
0134      ICARD(ND)=LC6(I)
0135      48 CONTINUE
0136      ND=ND+1
0137      ICARD(ND)=LN7(1)
0138      ICARD(ND+1)=LN7(2)
0139      ND=ND+2
0140      ICARD(ND)=LE0
0141      IVAL=1
0142      IF (IX .GT. 9) IVAL=2
0143      IF (IX .GT. 99) IVAL=3
0144      ENCODE (IVAL,1042,LVRTC,ERR=503) IX
0145      1042 FORMAT (I<IVAL>)
0146      49 CONTINUE
0147      K=1
0148      L=ND+1
0149      ND=ND+IVAL
0150      DO 50 I=L,ND
0151      ICARD(I)=LVRTC(K)
0152      K=K+1
0153      50 CONTINUE
0154      C      WRITE (LOUT,1000) ICARD
           HAVE ALL VERTICES BEEN PUNCHED
0155      IV=IV+1
0156      IF (IV .LE. NV) GO TO 40
0157      DO 51 I=1,80
0158      ICARD(I)=IPLNK
0159      51 CONTINUE
0160      DO 52 I=1,6
0161      ICARD(I)=LC7(I)
0162      52 CONTINUE
0163      WRITE (LOUT,1000) ICARD
0164      C      N=IFLD+NBDQUE+1
           HAVE ALL FIELDS BEEN PUNCHED
0165      IFLD=IFLD+1
0166      IF (IFLD .LE. NFLD) GO TO 20
0167      DO 54 I=1,6
0168      ICARD(I)=LC8(I)
0169      54 CONTINUE
0170      WRITE (LOUT,1000) ICARD

```


FLD0FF.FIN /TR:BLOCKS/NR

```
0171      500 CONTINUE
0172      CLOSE (UNIT=LU3)
0173      CLOSE (UNIT=L0UT)
0174      RETURN
0175      502 CONTINUE
0176      TYPE 1502, IX, IV, IFLD
0177      1502 FORMAT (1X, 'ENCODE ERROR Y', 3I6)
0178      GO TO 43
0179      503 CONTINUE
0180      TYPE 1503, IX, IV, IFLD
0181      1503 FORMAT (1X, 'ENCODE ERROR X', 3I6)
0182      GO TO 49
0183      END
```


21.11 SUBROUTINE FLODOFF



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21.12 SUBROUTINE RDFLD

FORTAN IV-PLUS V02-04

12158111

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FLDUFF.FTN

/TR1BLOCKS/WR

0001 SUBROUTINE RDFLD (ID,IERR,L03)

CCC

C

C

C

CCC

READ DD/DU FILE FOR SEGMENT

0002

PARAMETER NBD0UE=30

0003

PARAMETER NBD0U=1450

0004

COMMON /FLOC/ NFD,LD0DU(NBD0U)

0005

BYTE LD0DU

C

READ NO. OF FIELDS

0006

READ (L03,ERR=100,END=102) NFD

C

READ REST OF FILE

0007

N=1

0008

DO 90 J=1,NFD

0009

NN=N+NBD0UE-1

0010

READ (L03,ERR=100,END=102) (LD0DU(I),I=N,NN)

0011

N=N+NBD0UE

0012

90 CONTINUE

0013

IERR=0

0014

500 CONTINUE

0015

RETURN

0016

100 CONTINUE

0017

TYPE 2000, ID

0018

2000 FORMAT (1X,'ERROR,READING FIELD FILE FOR SEGMENT',I6)

0019

IERR=1

0020

GO TO 500

0021

102 CONTINUE

0022

IERR=2

0023

TYPE 2001, ID

0024

2001 FORMAT (1X,'END OF FILE READING FIELD FILE FOR SEGMENT',I6)

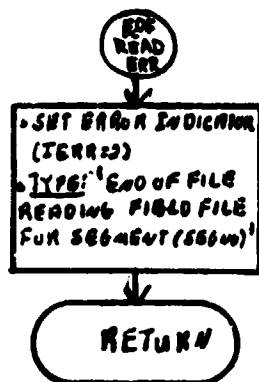
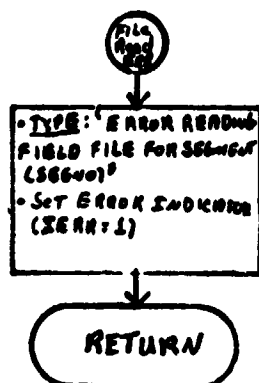
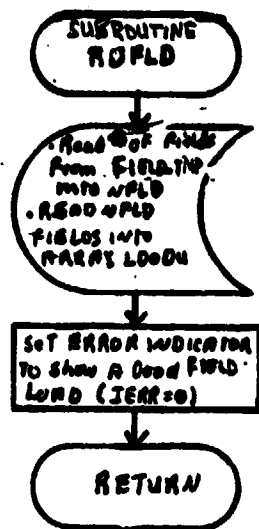
0025

GO TO 500

0026

END

21.12 SUBROUTINE RDFLD



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22. REFERENCES

1. Kell, T.: As Built Design Specification for the I-100 Tape Read Consolidation Program (FUL01); LEC-9925 (JSC-11848), Dec. 1976.
2. Kell, T.: IRREG Program Documentation; Rev. A, LEC-6063, Rev. A with Change 1, June 1975.

INDEX TO ALL VOLUMES

The following index lists all computer programs and subroutines found in the text and printouts, and the variables listed in the text. The first number of each description is the volume number, and the remaining number refers to the section in that volume. A preceding L indicates the position of a listing. Therefore, 1-3.3.1 indicates a reference in section 3.3.1 of volume 1, and L2-14.6 indicates that a listing can be found in section 14.6 of volume 2. The list of programs and subroutines is definitive. The list of variables is not complete since those not mentioned in text are not included.

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[illegible]

[illegible]

LOCATION OF LISTING

NAME	DESCRIPTION	LINE COMMENT	OCCURRENCES	LOCATION OF LISTING
THLOP	SHARE SUBROUTINE	1	3-21.	L3-21.
TI	VARIABLE	1	3-17.	
TIME	F4PLIBSUBROUTINE	1	1-3.5.1.4	
TOBUN	VARIABLE	1	1-3.5.1.1	
TP	VARIABLE	1	1-3.5.2.3	
TPXL	VARIABLE	1	1-3.5.2.9	
TPCT	VARIABLE	1	1-3.5.2.9	
TRAJPL	PRINT SUBROUTINE	1	1-3.5.2.5	
TSTAT.DAT	FILE	1	1-3.5.1.5	
TTX2	VARIABLE	1	1-3.5.2.3	
TTX1	VARIABLE	1	1-3.5.2.3	
TTY1	VARIABLE	1	1-3.5.2.3	
TTY2	VARIABLE	1	1-3.5.2.3	
TUN	VARIABLE	1	1-3.5.2.3	
TUNT	VARIABLE	1	1-3.5.2.3	
TURITE	SHARE SUBROUTINE	1	2-15.6	L2-15.6
TX	VARIABLE	2	3-22.	L3-22.
TX1	VARIABLE	1	1-3.5.2.3	
TX2	VARIABLE	1	1-3.4.9	
TY	VARIABLE	1	1-3.5.2.3	
TY1	VARIABLE	1	1-3.5.2.3	
TY2	VARIABLE	1	1-3.5.2.3	
TYPE	VARIABLE	1	1-3.4.4	
TYPE	VARIABLE	2	1-3.5.2.3	
TYPE1	VARIABLE	1	1-3.5.2.6	
TYPI	VARIABLE	1	1-3.5.1.3	
UFLAG1	CON3	1	1-3.5.1.3	
UFLAG2	CON3	1	1-3.4.9	
UFLAG3	CON3	1	1-3.4.4	
UFLAG4	CON4	1	1-3.4.9	
UNBIAS	PRINT SUBROUTINE	1	1-3.5.2.9	L2-18.3
UNCDIS	PRINT SUBROUTINE	1	1-3.5.2.7	L2-15.2
UNIT	VARIABLE	1	1-3.5.2.8	
UNIT	VARIABLE	1	3-5.	
UNLDOT	PRINT SUBROUTINE	1	1-3.5.2.3	L2-3
UNPAK	PRINT FUNCTION	1	1-3.5.1.3	L2-3.1
UNPAK	VARIABLE	1	1-3.5.1.3	
UPCT	VARIABLE	1	1-3.5.2.9	
UPDATE	PRINT SUBROUTINE	1	1-3.5.2.6	L2-3.6
UPDOT	PRINT SUBROUTINE	1	2-2.15	L2-2.15
J	VARIABLE	1	1-3.5.2.3	L2-12.6
WALCK	PRINT SUBROUTINE	1	3-9.	L3-23.
WAR	CON2	1	1-3.4.9	
VARO	CON2	1	1-3.4.9	
VALTR	SHARE SUBROUTINE	1	1-3.5.2.5	
VERTX	VARIABLE	1	3-11.1	
WAIT	IMPLIBSUBROUTINE	1	1-3.5.2.5	
WAITR	F4PLIBSUBROUTINE	1	1-3.5.1.4	
WC	VARIABLE	1	1-3.5.2.3	
WINDER	SHARE SUBROUTINE	1	1-CONTS	L3-24.

LOCATION OF LISTING

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6-3'

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LOCATION OF
LISTING

NAME	DESCRIPTION	LINE	COMMENT	OCCURRENCES	LOCATION OF LISTING
3	COM4 VARIABLE	1		1-3.4.9	
GAB1	PRIVT SUBROUTINE	1		1-3.5.2.3	1-3.5.2.5
GB	VARIABLE	1		1-3.5.2.3	
GBCALC	PRIVT SUBROUTINE	1		1-3.5.1.4	
GETADR	F4PLIBSUBROUTINE	1		1-3.5.2.7	3-13.
GETC00	SHARE SUBROUTINE	1		1-3.5.2.2	1-3.5.2.5
GLOBAL.TMP	FILE	1		1-3.4.9	1-3.5.2.9
GMAX	COM4 VARIABLE	1		1-3.4.9	
GMIN	COM4 VARIABLE	1		1-3.4.9	
GRENO	VARIABLE	1		1-3.5.2.9	
GRENOB	VARIABLE	1		1-3.5.2.5	
GRENS	VARIABLE	1		1-3.5.2.9	
GRID	COMS VARIABLE	1		1-3.4.9	
GTYPE	PRIVT SUBROUTINE	1		1-3.5.2.5	
HDRREC.DAT	FILE	1		1-3.2.2	
HEXD	PRIVT SUBROUTINE	1		1-3.5.1.5	
HEADIN	PRIVT SUBROUTINE	1		1-3.5.2.3	
HFG	VARIABLE	1		1-3.5.2.3	
HFL	PRIVT SUBROUTINE	1		1-3.5.1.5	
HFCUTT	PRIVT SUBROUTINE	1		1-3.5.1.5	
HFRS	SHARE SUBROUTINE	1		1-3.5.1.5	
HREAD	PRIVT SUBROUTINE	1		1-3.5.2.3	
HSEKPG	PRIVT SUBROUTINE	2		1-3.5.2.5	
HSIZ	VARIABLE	1		1-3.5.2.3	
HUFY	SHARE SUBROUTINE	1		1-3.5.1.5	
I	VARIABLE	1		1-3.5.1.2	1-3.5.2.5
IBUF	VARIABLE	2		1-3.5.1.2	1-3.5.2.5
IBYTE	IMPLIBSUBROUTINE	1		1-3.5.1.2	1-3.5.2.5
IC	VARIABLE	1		1-3.5.2.5	3-2.
ICANT	VARIABLE	1		1-3.5.2.7	
ID	VARIABLE	1		1-3.5.1.2	
IDATE	F4PLIBSUBROUTINE	1		1-3.5.2.5	
IDENT1	PRIVT SUBROUTINE	1		1-3.5.2.8	
IER	VARIABLE	1		1-3.4.6	
IERR	VARIABLE	1		1-3.5.1.2	
IFST	VARIABLE	1		1-3.5.2.4	
II	VARIABLE	1		1-3.5.2.5	
III	VARIABLE	1		1-3.4.9	
IIIX	VARIABLE	1		1-3.5.2.3	
IIIX2	VARIABLE	1		1-3.5.2.3	
IIY1	VARIABLE	1		1-3.5.2.3	
IIY2	VARIABLE	1		1-3.5.2.3	
ILABEL	VARIABLE	1		1-3.5.2.6	
INAPUD	OFFICE PROGRAM	1	TASK	1-3.3	
INDATE	COM2 VARIABLE	1		1-3.4.9	
INDND	COM4 VARIABLE	1		1-3.4.9	
INCLDS	PRIVT SUBROUTINE	1		1-3.5.2.9	
INCLDS	PRIVT SUBROUTINE	1		1-3.5.1.2	
INIT	INTRAC PROGRAM	1	TASK	1-3.3	
INIT	VARIABLE	2		1-3.5.2.1	
INIT	VARIABLE	1		1-3.5.1.3	

LOCATION OF LISTING

OCCURRENCES

NAME DESCRIPTION LINE COMMENT

INTFF	F4PLIBSUBROUTINE	1	1-3.5.2.5	1-3.5.2.6	1-3.5.2.8	1-3.5.2.9	12-8.2
INTLZE	PRIVT SUBROUTINE	1	1-3.5.2.2				
INX	VARIABLE	1	1-3.5.1.2				
IO	VARIABLE	1	1-3.5.2.4	1-3.5.2.5	1-3.5.2.9	3-3.	3-4.1
IOF	VARIABLE	1	1-3.5.2.5				
IOPT	VARIABLE	1	1-3.5.1.2				
IP	VARIABLE	1	1-3.5.2.3				
IRDEF.THP	FILE	1	1-3.5.2.4				
IRSLB	VARIABLE	1	1-3.5.2.8				
IRREG3	SUBROUTINE	1	1-3.5.2.4				
IRT	TASK						
IRU	IMALIBSUBROUTINE	1	1-3.5.2.5				
IOFRAT	PRIVT SUBROUTINE	1	1-3.5.2.5				
ISEG	COM2	2	3-4.2	1-3.5.2.3	1-3.5.2.6	1-3.5.2.9	12-4.2
ISET	VARIABLE	1	1-3.4.9				
	VARIABLE	1	3-13.				
ITUDN	VARIABLE	1	1-3.5.2.6				
IU	VARIABLE	1	3-17.				
IUL	IMALIB SUBROUTINE	1	1-3.5.2.5				
IUT	IMALIB SUBROUTINE	1	1-3.5.2.5				
IX	VARIABLE	1	1-3.5.2.3	1-3.5.2.7	3-4.2		
IX1	VARIABLE	1	1-3.4.9	1-3.5.2.3	1-3.5.2.7		
IX2	VARIABLE	1	1-3.4.9	1-3.5.2.3	1-3.5.2.7		
IXY	VARIABLE	1	1-3.5.1.2	1-3.5.2.7	1-3.5.2.7		
IY	VARIABLE	1	1-3.5.2.3	1-3.5.2.7	1-3.5.2.7		
IY1	VARIABLE	1	1-3.4.9	1-3.5.2.3	1-3.5.2.7		
IY2	VARIABLE	1	1-3.4.9	1-3.5.2.3	1-3.5.2.7		
J	VARIABLE	1	1-3.5.1.2	1-3.5.1.6	1-3.5.2.X		12-1.
JDIR	PROGRAM	1	3-11.2				
JJ	VARIABLE	1	1-3.5.2.8				
	- INCLUDE						
JUL	VARIABLE	1	1-3.5.2.8				
JUL10	VARIABLE	1	1-3.5.1.2	1-3.5.2.X			
JULDAT	VARIABLE	1	1-3.5.1.5				
JULIAN	FUNCTION	1					
	PRIVT SUBROUTINE	2	1-3.5.1.2	1-3.5.1.3	1-3.5.2.X	2-2.16	12-3.+ 12-5.8 12-1.+ 12-2.16
K	VARIABLE	1	1-3.5.2.5	1-3.5.2.X			12-1.
KXUTH	SUBROUTINE	1	1-3.5.1.4				
KK	VARIABLE	1	3-4.1				
KNN	VARIABLE	1	1-3.4.6	1-3.5.2.6			12-14.5
KNNRN	PRIVT SUBROUTINE	1	1-3.5.2.6				12-2.2
KOERT	PRIVT SUBROUTINE	1	1-3.5.1.2				
KRW	VARIABLE	1	1-3.5.2.2				
L	VARIABLE	1	3-17.				
LABEL	VARIABLE	1	1-3.5.1.3	1-3.5.2.8			
LABNUM	VARIABLE	1	1-3.5.1.3				
LE	VARIABLE	1	1-3.5.2.3				
LECTAP	SUBROUTINE	1	1-3.5.1.3	1-3.5.1.5	3-16.		13-16.
LEBC	VARIABLE	1	1-3.5.2.3				
LEF	VARIABLE	1	1-3.5.2.3				
LEL	VARIABLE	1	1-3.5.2.3				

LOCATION OF LISTING

NAME	DESCRIPTION	LINE COMMENT	OCCURRENCES
LIN	SHARE SUBROUTINE	1	1-3.5.2.4 1-3.5.2.5 3-17.
LIST1	PRIVT SUBROUTINE	1	1-3.5.2.4 2-15.3
LIST2	PRIVT SUBROUTINE	1	1-3.5.2.4 2-15.15
LIST3	PRIVT SUBROUTINE	1	1-3.5.2.4 2-15.15
LOOKUP	VARIABLE	1	1-3.5.2.4 2-15.15
LOUHL	VARIABLE	1	1-3.5.2.8
UREED	SUBROUTINE	1	1-3.5.1.5
LRJUNK	PRIVT SUBROUTINE	1	1-3.5.2.3
LS	VARIABLE	1	1-3.4.6
LUN	VARIABLE	1	1-3.5.2.3 3-5.
LUN	VARIABLE	1	1-3.5.2.3
LUT	VARIABLE	1	1-3.5.2.3
M	VARIABLE	1	1-3.5.1.2
MAPUPD	PRIVT SUBROUTINE	1	1-3.5.1.5
MAXACC	VARIABLE	1	1-3.4.9 1-3.5.2.9
MAXACD	VARIABLE	1	1-3.4.9
MAXCAT	VARIABLE	1	1-3.5.1.3
MAXCAN	VARIABLE	1	1-3.5.1.3 1-3.5.1.5
MAXSUB	VARIABLE	1	1-3.4.9
NB	VARIABLE	1	1-3.5.2.5 3-2.
MODDU	PROGRAM	1	1-3.5.2.9
MENSTD	PRIVT SUBROUTINE	1	1-3.5.2.4
MFLDS	VARIABLE	1	1-3.5.2.3
MGL	VARIABLE	1	1-3.5.2.7
MIXDIS	PRIVT SUBROUTINE	1	2-15.14
MIXED	PRIVT SUBROUTINE	1	2-15.16
ML	VARIABLE	1	3-2.
MD	VARIABLE	1	1-3.5.2.5
MR	VARIABLE	1	1-3.5.2.2 1-3.5.2.5 3-2.
MTXTRG	VARIABLE	1	1-3.5.2.3 3-5.
MJ	VARIABLE	1	1-3.5.2.5 3-2.
MX	VARIABLE	1	1-3.5.2.3 1-3.5.2.7
MXC	VARIABLE	1	1-3.5.2.3
MY	VARIABLE	1	1-3.5.2.3
N	VARIABLE	1	1-3.5.1.2 1-3.5.2.5 1-3.5.2.6 1-3.5.2.7 1-3.5.2.8 1-3.5.2.9 1-3.5.2.10 1-3.5.2.11 1-3.5.2.12 1-3.5.2.13 1-3.5.2.14 1-3.5.2.15 1-3.5.2.16 1-3.5.2.17 1-3.5.2.18 1-3.5.2.19 1-3.5.2.20 1-3.5.2.21 1-3.5.2.22 1-3.5.2.23 1-3.5.2.24 1-3.5.2.25 1-3.5.2.26 1-3.5.2.27 1-3.5.2.28 1-3.5.2.29 1-3.5.2.30 1-3.5.2.31 1-3.5.2.32 1-3.5.2.33 1-3.5.2.34 1-3.5.2.35 1-3.5.2.36 1-3.5.2.37 1-3.5.2.38 1-3.5.2.39 1-3.5.2.40 1-3.5.2.41 1-3.5.2.42 1-3.5.2.43 1-3.5.2.44 1-3.5.2.45 1-3.5.2.46 1-3.5.2.47 1-3.5.2.48 1-3.5.2.49 1-3.5.2.50 1-3.5.2.51 1-3.5.2.52 1-3.5.2.53 1-3.5.2.54 1-3.5.2.55 1-3.5.2.56 1-3.5.2.57 1-3.5.2.58 1-3.5.2.59 1-3.5.2.60 1-3.5.2.61 1-3.5.2.62 1-3.5.2.63 1-3.5.2.64 1-3.5.2.65 1-3.5.2.66 1-3.5.2.67 1-3.5.2.68 1-3.5.2.69 1-3.5.2.70 1-3.5.2.71 1-3.5.2.72 1-3.5.2.73 1-3.5.2.74 1-3.5.2.75 1-3.5.2.76 1-3.5.2.77 1-3.5.2.78 1-3.5.2.79 1-3.5.2.80 1-3.5.2.81 1-3.5.2.82 1-3.5.2.83 1-3.5.2.84 1-3.5.2.85 1-3.5.2.86 1-3.5.2.87 1-3.5.2.88 1-3.5.2.89 1-3.5.2.90 1-3.5.2.91 1-3.5.2.92 1-3.5.2.93 1-3.5.2.94 1-3.5.2.95 1-3.5.2.96 1-3.5.2.97 1-3.5.2.98 1-3.5.2.99 1-3.5.2.100
N	VARIABLE	1	1-3.5.2.6 3-3.
NACQ	VARIABLE	1	1-3.5.2.6
NBIT	VARIABLE	1	1-3.5.2.6
NB	VARIABLE	1	1-3.5.2.6
NCR	VARIABLE	1	1-3.5.2.6
NDOPIX	VARIABLE	1	1-3.5.2.6
NDOUT	VARIABLE	1	1-3.5.2.6
NDOOTS	VARIABLE	1	1-3.5.2.6
NDSR	VARIABLE	1	1-3.5.2.6
NDOPIX	VARIABLE	1	1-3.5.2.6

LOCATION OF LISTING

NAME	DESCRIPTION	LINE	COMMENT	OCCURRENCES	LOCATION OF LISTING
NEELAB	COM3	1	VARIABLE	1-3.4.9	1-3.5.2.6 1-3.5.2.7
NF	VARIABLE	1		1-3.5.2.3	
NFIELD	PRIVT SUBROUTINE	1		1-3.5.1.2	2-2.21
NFL	VARIABLE	1		1-3.5.2.4	
NFLD	VARIABLE	1		1-3.5.2.4	
NFLDST	PRIVT SUBROUTINE	1		1-3.5.1.2	2-2.19
NLIN	VARIABLE	1		1-3.5.1.3	1-3.5.1.5 1-3.5.2.8
NLP	VARIABLE	1		1-3.5.2.8	
NN.TMP	FILE	1		1-3.5.2.6	1-3.5.2.7
NNNNYDDD.DAT	FILE	1		1-3.5.1.1	
NODCO	COM2	1	VARIABLE	1-3.4.9	1-3.5.2.9 1-3.5.2.X
NODCAT	COM2	1	VARIABLE	1-3.4.9	1-3.5.1.4 1-3.5.2.5
NODCHAN	COM1	1	VARIABLE	1-3.4.9	1-3.5.1.4
NODO	COM1	1	VARIABLE	1-3.4.9	1-3.5.1.4 1-3.5.2.9
NODOT	VARIABLE	1		3-4.4	
NODTND	VARIABLE	1		1-3.4.9	
NODTND	VARIABLE	1		1-3.4.9	
NODU	COM1	1	VARIABLE	1-3.4.9	1-3.5.1.4 1-3.5.2.9
NODFLD	VARIABLE	1		3-11.1	
NOLIN	VARIABLE	1		1-3.5.2.8	
NOSRAD	VARIABLE	1		1-3.4.8	1-3.4.9 1-3.4.9 1-3.5.1.4 1-3.5.2.7
NOSUB	VARIABLE	1		1-3.4.5	
NOTH	COM1	2		1-3.5.2.9	
NTH	VARIABLE	1		1-3.4.9	1-3.5.1.4 1-3.5.2.9
NTHX	VARIABLE	1		1-3.5.1.3	1-3.5.1.5 1-3.5.2.8
NTHX4	VARIABLE	1		1-3.5.1.5	
NPTS	VARIABLE	1		3-11.2	
NP	VARIABLE	1		1-3.5.2.2	3-19.
NPDS	VARIABLE	1		1-3.5.2.3	
NS	VARIABLE	1		1-3.5.2.3	
NSAMP	VARIABLE	1		1-3.5.2.8	3-11.2
NSEND	PRIVT SUBROUTINE	1		1-3.5.1.2	2-2.22
NSTART	COM2	1	VARIABLE	1-3.4.9	1-3.5.2.X
NT	VARIABLE	1		1-3.5.2.5	3-2.
NTH	VARIABLE	1		1-3.5.2.8	
NTYPE1	COM2	1	VARIABLE	1-3.4.9	1-3.5.2.5 1-3.5.2.6
NUCAT	VARIABLE	1		1-3.5.2.7	
NUDOT	COM4	1	VARIABLE	1-3.4.9	1-3.5.2.5
NU	VARIABLE	1		1-3.5.2.4	3-11.1
NX	VARIABLE	1		1-3.5.2.3	
OPEN	F4PLIBSUBROUTINE	1		1-3.5.1.4	1-3.5.2.9
OPRESS	PRIVT SUBROUTINE	1		1-3.5.1.3	1-3.5.1.5
OUTFILE.DAT	FILE	2		1-3.5.1.2	
OUTPUT	IMLIBSUBROUTINE	1		1-3.5.2.5	1-3.5.2.6 1-3.5.2.8 1-3.5.2.9
P	VARIABLE	1		3-3.	3-19.
PRINT	PRIVT SUBROUTINE	1			
PCTCT	COM2	1	VARIABLE	1-3.4.9	
PCTCT0	COM2	1	VARIABLE	1-3.4.9	1-3.5.2.X
PDATE1	COM2	1	VARIABLE	1-3.4.9	1-3.5.2.X
PDATE2	COM2	1	VARIABLE	1-3.4.9	1-3.5.2.X
PDATE3	COM2	1	VARIABLE	1-3.4.9	1-3.5.2.X

LOCATION OF LISTING

OCCURRENCES

NAME DESCRIPTION LINE COMMENT

SECDMS	FAPLIBSUBROUTINE	1	TASK	1-3.5.1.4	-3.5.2.5	1-3.3.4	1-3.3.5	1-3.5.1.6	L2-6.
SEGDOL	OFFICE PROGRAM	2		1-3.3.3					L2-2.8
SEGDND	PRIVT SUBROUTINE	1		2-6.					L2-18.2
SEGDND	VARIABLE	1		1-3.5.1.2	2-2.8				L2-12.4
SEGDND	VARIABLE	1		1-3.5.2.X	3-6.				L2-12.5
SEGDND	VARIABLE	1		1-3.5.1.5					L3-19.
SELDOT	PRIVT SUBROUTINE	1		1-3.5.2.9					L2-3.9
SETBIT	INALIBSUBROUTINE	1		1-3.5.2.5	1-3.5.2.9				L2-10.X
SETDEF	FAPLIBSUBROUTINE	1		1-3.5.2.5					L2-5.6
SETUID	SUBROUTINE	1		1-3.5.2.5					L2-1.
SETWIN	SUBROUTINE	1		1-3.5.2.5					
SHALL	SHARE SUBROUTINE	1		1-3.5.2.5	3-19.				
SKIP	PRIVT FUNCTION	1		1-3.5.1.3					
SOILGR	CON2	1		1-3.4.9	1-3.5.2.5				
SORT	PRIVT SUBROUTINE	1							
SORTRC	PRIVT SUBROUTINE	1							
SPIND	COM4	1		1-3.4.9	1-3.5.2.5				
SRDISK	PRIVT	1		1-3.5.1.1					
SS	VARIABLE	1		1-3.5.1.1					
SSSYDD	DAT FILE	1		1-3.5.2.3					
START	VARIABLE	1		1-3.5.1.3					
STRASU	PRIVT SUBROUTINE	1		1-3.5.1.3					
STRATIL	TRIP FILE	1		1-3.5.2.2					
STRAYS	PRIVT SUBROUTINE	1		1-3.5.1.1					
STYPE	PRIVT SUBROUTINE	1		1-3.5.2.5					
SUBCAT	COM1	1		1-3.4.9	1-3.5.1.4	-13.5.2.	9-		L2-21.5
SUBPUP	COM1	1		1-3.4.9	1-3.5.1.4				L2-1.
SUBSTR	SHARE SUBROUTINE	1		1-3.5.1.3	1-3.5.1.5	1-3.5.1.6	1-3.5.2.X	3-20.	L2-13.1
SUD	COM2	1		1-3.5.2.3					
SUN2	VARIABLE	1		1-3.4.9					
SUNEL	COM2	1		1-3.4.9	1-3.5.2.6				L2-10.9
SUNCL	PRIVT SUBROUTINE	1							L2-1.
T2	PRIVT SUBROUTINE	1	T2DRMOD						L3-4.
T2DR	PRIVT SUBROUTINE	1		3-4.					L2-1.
TABLE	SHARE SUBROUTINE	1							L2-9.3
TAPSON	PRIVT	1		1-3.5.1.1					
TC	VARIABLE	1		1-3.5.2.7	3-13.				
TOL4ST	SUBROUTINE	1		1-3.5.2.3					
TOL4M	MAP FILE	1		1-3.5.1.5					
TOL4M	MAP FILE	1		1-3.5.1.5					
TDATE1	COM2	1		1-3.4.9	1-3.5.2.X				
TDATE2	COM2	1		1-3.4.9	1-3.5.2.X				
TDATE3	COM2	1		1-3.4.9	1-3.5.1.3	1-3.5.1.4	1-3.5.2.X		
TDIS	VARIABLE	1		1-3.5.2.6					
TLOPM	SUBROUTINE	1	TASK	1-CONTENTS	1-3.5.2.5				L2-12.8

LOCATION OF LISTING

NAME	DESCRIPTION	LINE COMMENT	OCCURRENCES	LOCATION OF LISTING
THLOP	SHARE SUBROUTINE	1	3-21.	L3-21.
TI	VARIABLE	1	3-17.	
TIME	F4PLBSUBROUTINE	1	1-3.5.1.4	
TORDN	VARIABLE	1	1-3.5.1.1	
TP	VARIABLE	1	1-3.5.2.3	
TP1XL	VARIABLE	1	1-3.5.2.9	
TPCT	VARIABLE	1	1-3.5.2.9	
TRAJPL	PRINT SUBROUTINE	1	1-3.5.2.5	
TSTAT.DAT	FILE	1	1-3.5.1.5	
TTX2	VARIABLE	1	1-3.5.2.3	
TTX1	VARIABLE	1	1-3.5.2.3	
TTY1	VARIABLE	1	1-3.5.2.3	
TTY2	VARIABLE	1	1-3.5.2.3	
TUN	VARIABLE	1	1-3.5.2.3	
TUNIT	VARIABLE	1	1-3.5.2.3	
TURITE	SHARE SUBROUTINE	1	1-3.5.2.7	
TX	VARIABLE	2	2-15.6	L2-15.6
TX1	COM4	1	1-3.5.2.3	L3-22.
TX2	COM4	1	1-3.5.2.3	
TY	VARIABLE	1	1-3.5.2.3	
TY1	COM4	1	1-3.5.2.3	
TY2	COM4	1	1-3.5.2.3	
TYPE	COM5	2	1-3.4.9	
TYPE1	COM5	1	1-3.5.2.6	
TY1	VARIABLE	1	1-3.5.2.3	
TY2	VARIABLE	1	1-3.5.2.3	
TYPE	VARIABLE	1	1-3.4.9	
TYPE1	VARIABLE	1	1-3.5.2.6	
TY1	VARIABLE	1	1-3.5.2.3	
UFLAG1	COM3	1	1-3.5.2.3	
UFLAG2	COM3	1	1-3.5.2.3	
UFLAG3	COM3	1	1-3.5.2.3	
UFLAG4	COM4	1	1-3.5.2.3	
UNBIOS	PRINT SUBROUTINE	1	1-3.5.2.9	
UNCDIS	PRINT SUBROUTINE	1	1-3.5.2.9	
UNID	VARIABLE	1	1-3.5.2.8	
UNIT	VARIABLE	1	3-5.	
UNDOT	PRINT SUBROUTINE	1	1-3.5.2.3	
UNPAK	PRINT FUNCTION	1	1-3.5.1.3	
UNPAK	VARIABLE	1	1-3.5.1.3	
UPCT	VARIABLE	1	1-3.5.1.3	
UPDATE	PRINT SUBROUTINE	1	1-3.5.2.9	
UPDOT	PRINT SUBROUTINE	1	1-3.5.1.2	
U	VARIABLE	1	1-3.5.2.3	
VALCK	PRINT SUBROUTINE	1	3-9.	
VAR	COM2	1	1-3.4.9	
VAR0	COM2	1	1-3.4.9	
VDALTR	SHARE SUBROUTINE	1	1-3.5.2.5	
VERTEX	VARIABLE	1	1-3.5.2.8	
WAIT	IMPLBSUBROUTINE	1	1-3.5.2.5	
WAITR	F4PLBSUBROUTINE	1	1-3.5.1.4	
WC	VARIABLE	1	1-3.5.2.3	
WINDER	SHARE SUBROUTINE	1	1-3.5.2.3	

NAME	DESCRIPTION	LINE	CONTENT	OCCURRENCES	LOCATION OF LISTING
WINDRM	PROGRAM	1	TASK		L2-12.7
WINDRM	SUBROUTINE	1		1-COUNTS	L2-12.
WORK	VARIABLE	1		1-3.5.1.3	L2-2.14
WRDIR	PRIVT SUBROUTINE	1		1-3.5.1.2	L2-2.12
WRDODU	PRIVT SUBROUTINE	1		1-3.5.1.2	L2-2.13
WRDOT	PRIVT SUBROUTINE	1		2-2.13	
X	VARIABLE	1		1-3.5.2.8	
XPCT	VARIABLE	1		1-3.5.2.9	
XXXXDOOTS.DAT	FILE	1		1-3.5.2.X	
XXXXDOOTS.DAT	FILE	1		1-3.3	1-3.5.1.3
XXXXFIELD.DAT	FILE	1		1-3.3.4	1-3.5.2.2
XXXXPCLAS.MAP	FILE	1		1-3.3.5	1-3.5.2.X
XXXXPCLUS.MAP	FILE	1		1-3.3.5	1-3.5.2.X
XXXXSTAT.DAT	FILE	1		1-3.4.3	1-3.5.2.2
XXXXTCLAS.MAP	FILE	1		1-3.4.5	1-3.5.2.X
XXXXTCPLUS.MAP	FILE	1		1-3.3.5	1-3.5.2.2
XXXXTSTAT.DAT	FILE	1		1-3.3	1-3.5.2.2
XXXXYDDDD.DAT	FILE	2		1-3.3	1-3.5.1.4
XZ	VARIABLE	1		1-3.5.2.X	
Y	VARIABLE	1		1-3.5.2.3	
YLINE	VARIABLE	1		1-3.5.2.5	
YZ	VARIABLE	1		3-11.2	
ZNAME	PRIVT SUBROUTINE	1		1-3.5.1.2	1-3.5.2.X
ZD	VARIABLE	1		1-3.5.2.3	
ZOOM	PRIVT SUBROUTINE	1		1-3.5.2.1	L2-5.12
				1-3.5.2.3	
				1-3.5.2.7	2-15.9
				1-3.5.2.8	3-25.
				1-3.5.2.9	L2-15.9
				1-3.5.2.10	4-3-25.